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A WARNING.

In the High Court of Justice.

CHANCERY DIVISION.

MR. JUSTICE NORTH.

26TH OCTOBER, 1886.

KEATING v. POLL.

IT WAS ORDERED:

That the Defendant be perpetually restrained from stating or causing to be stated that Keating's Persian Insect Destroying Powder contains **any substance poisonous to animals or human beings**, or from making any statement to the effect that such Powder is dangerous to animals or human beings.

IT WAS FURTHER ORDERED:

That the Defendant, William Sheppard Poll, do pay to the Plaintiffs their costs of this action.

In this action the Plaintiff's Manager swore, and his affidavit was in no way disputed, that KEATING'S INSECT DESTROYING POWDER is quite harmless to animals and human beings, and that it does not contain any substance that is poisonous to either.

"Keating's Powder" is a special preparation, different from, and not to be compared with, any so-called Insect Powders which give so much dissatisfaction to customers.

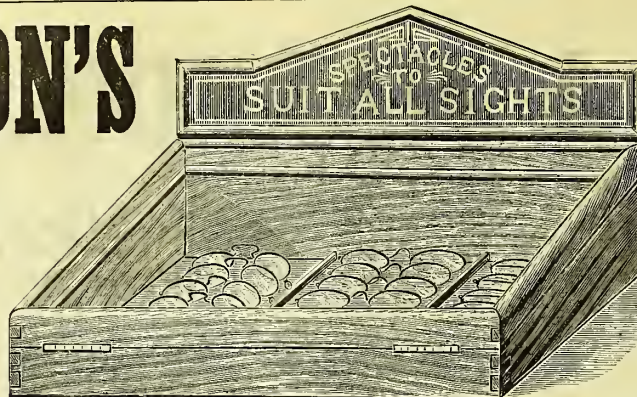
NOTICE.—Chemists who make statements to customers defamatory of Keating's Insect Powder will be summarily proceeded against.

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"THE CHEMIST AND DRUGGIST," May 15, 1886, says:

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2 Dozen Steel Frame Spectacles, Joints, with Screw and Pin	to sell 1/0 per pair	s. d.
1 " Ditto, better quality, stout frames, Straw or Blue Steel	" 2/6 "	10 6
1 " Folders, Steel Frames and Placquets	" 1/0 "	5 6
1 " Leather Tuck Spectacle Cases	" 6d. each	2 6
1 " Folder Cases	" 4d. "	1 6
Show Case and Sight Tester		15 0
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Our £3 3s. Case contains—

2 Dozen Steel Frame Spectacles, Joints, with Screw and Pin	to sell 1/0 per pair	s. d.
1 " Better quality ditto, Straw or Blue Steel, best White Glasses	" 3/6 "	15 0
1 " Folders, Steel Frames and Placquets	" 1/0 "	5 6
1 " Best Nickel Folders	" 3/6 "	16 0
1 " Spectacle Cases, Leather	" 6d. each	3 0
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Show Case and Sight Tester		15 0
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Our £6 6s. Show Case contains—

2 Dozen Steel Frame Spectacles, Joints, with Screw and Pin	to sell 1/0 per pair	£ s. d.
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1 " Ditto, better quality, stout frames, Blue or Straw Steel	" 3/6 "	15 0
1 " Light Straw Steel Spectacles	" 5/6 "	1 4 0
1 " Folders	" 1/0 "	5 6
1 " Ditto, Nickel	" 3/6 "	16 0
1 " Ditto, light grooved, invisible	" 5/6 "	1 1 0
1 " Frog Mouth Cases	" 1/0 each	7 0
1 " Tuck Cases	" 6d. "	2 6
1 " Folder Cases	" 4d. "	1 6
Large size Show Case and Sight Tester		1 0 0
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Our £10 10s. Case contains—

3 Dozen Steel Spectacles, Joints, with Screw and Pin	to sell 1/0 per pair	£ s. d.
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1 " Invisible ditto, ditto, ditto	" 6/6 "	1 10 0
1 " Blue and Straw Steel Frames, with Pebble	" 7/6 "	1 13 0
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2 " Folders, Steel Frames and Placquets	" 1/0 "	11 0
1 " Ditto, Nickel and Shell Placquets	" 3/6 "	16 0
1 " Ditto, Light Invisible	" 5/6 "	1 1 0
1 " Best Morocco Frog Mouth Cases	" 1/0 "	7 0
1 " Leather Tuck	" 6d. "	2 6
1 " Folder Cases, best	" 6d. "	2 6
Large size Show Case and Sight Tester		1 1 0
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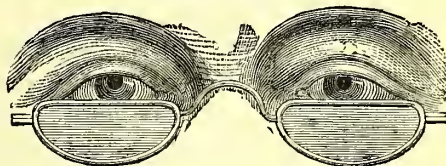
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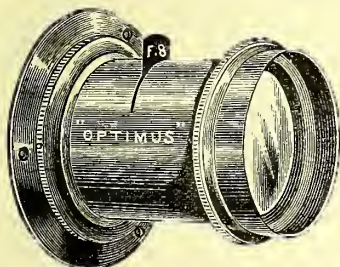
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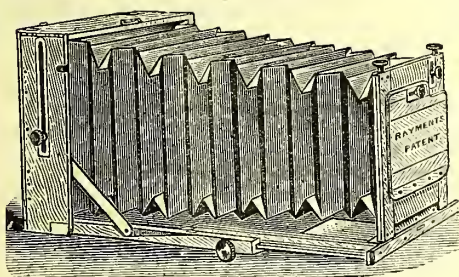
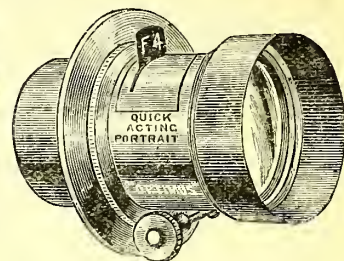
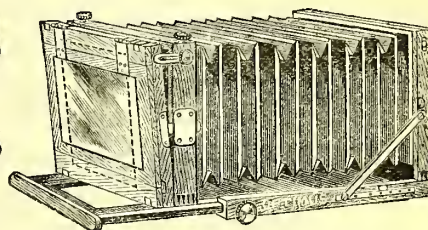
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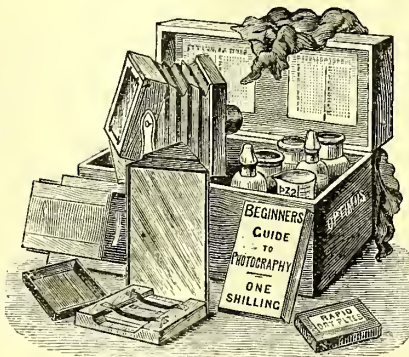
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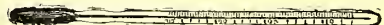
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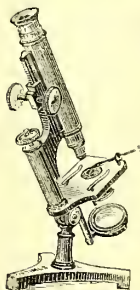
STEREOSCOPES, Graphoscopes, Praxinoscopes, Reading and other Magnifiers, Camera Obscura.

Optimus BURNISHERS,

RUBY LAMPS, HEAD RESTS, TRAYS,
MEASURES, SCALES, PRINTING FRAMES,
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**OPTIMUS
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SLIDES, GAS BAGS, JETS,
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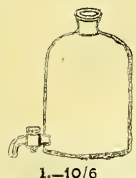
Binocular Double Telescopes,
Magnifying 144 to 576 Times.

**101 HATTON GARDEN, LONDON, E.C.**

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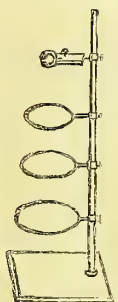
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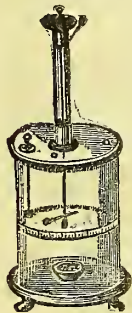
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J. ORME & CO.

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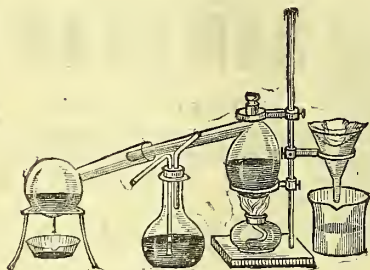
MANUFACTURERS

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SCIENTIFIC APPARATUS,

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Finest BOHEMIAN
and GERMAN
GLASS AND PORCELAIN
**CHEMICAL
APPARATUS,**



ALSO
**PURE
CHEMICALS**
For Analysis,

*By appointment to Her Majesty's Honourable Board of Inland Revenue;
Science and Art Department and Government Schools at South
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**APPARATUS SECURELY PACKED FOR THE
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NEW PRICE LIST OF CHEMICAL APPARATUS,
Containing 600 Illustrations, price 6d.

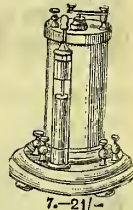
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65 BARBICAN, LONDON.



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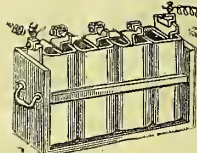
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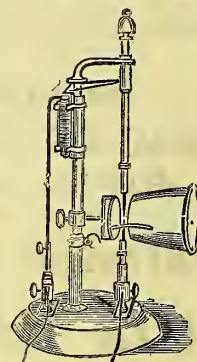
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4/6 to 30/-



13.—£1 15/-



14.—£2 2/-



ROWLANDS' ARTICLES FOR THE TOILET

Have been known for nearly 100 years all over the world. They always command a ready sale, and will keep fresh for a long time in the hottest or coldest climates.

ROWLANDS' KALYDOR,

An emollient milk for beautifying the complexion and eradicating all cutaneous affections, is especially esteemed by ladies in Hot Climates for removing Prickly Heat, Insect Stings, &c.

4/6 and 8/6 per Bottle. Half-size Bottles are now put up at 2/3.

ROWLANDS' MACASSAR OIL

The best preserver and beautifier of the hair, and will keep sweet for years in the hottest climate: is now also sold in a

GOLDEN COLOUR,

which is especially prepared for golden-haired children, or fair or grey haired adults

ROWLANDS' EUKONIA.

A pure and harmless Toilet Powder in three tints—White, Rose, and Cream.

ROWLANDS' ODONTO.

A pure and non-gritty Tooth Powder; whitens the teeth and prevents decay.

ROWLANDS' ESSENCE OF TYRE.

For dyeing the hair brown or black.

Advertisements always given for Chemists' Lists and other Publications.

A. ROWLAND & SONS, 20 Hatton Garden, LONDON.

A GREAT SUCCESS.

BATES'S FRIZZETTA

has the extraordinary property of keeping the HAIR IN CURL during the dampest weather and in the warmest assembly or ball-room.

It is perfectly *harmless, colourless*, and highly serviceable to Ladies who wish to keep their Hair **FRIZZED**

or **CURLED**.

BATES'S FRIZZETTA is now used by **LADIES** in all parts of the World, and needs but an introduction to command a ready and constant sale.

The great success of this popular and useful preparation has brought several worthless imitations into the market.

The only Genuine and Original Preparation is prepared by

F. W. BATES, CHEMIST,

Brooks's Bar, MANCHESTER, ENGLAND.

SOLE WHOLESALE AGENT for the UNITED STATES:

FRANK PYATT, 438 West Madison Street, CHICAGO.

REFUSE TO DEAL IN IMITATIONS.

BATES'S

BATES'S

FRIZZETTA
REGISTERED.

SPONGE PRICES CURRENT



R. CRESSWELL & CO.,

SPONGE IMPORTERS AND MERCHANTS,

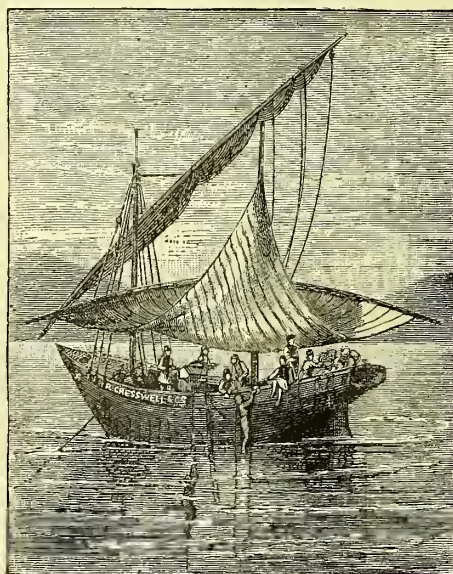
HEAD OFFICE:

32 RED LION SQUARE, LONDON, W.C.

Branches.

53 Waterloo St.,
GLASGOW.

1 Crown Alley,
Dame St.,
DUBLIN.



TRADE MARK.

Branches.

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Telegraphic Address:
"CRESSWELL LONDON."

TERMS— $2\frac{1}{2}$ per cent. Discount. 3 months nett.

Telephone No.

ESTABLISHED 1850.

See following pages.

R. CRESSWELL & Co.,

SPONGES IN CASES.

SANDED OR SANDLESS.

HONEY-COMB SPONGES.

No.	Qty.		Pieces in case, about	Price case.
1	1st	Finest selected shapes, assorted sizes	120	240/
2	1st	Do. do. do.	75	140/
3	1st	Do. do. do.	45	80/
4	1st	Small selected shapes	280	140/
5	1st	Superior do. large Bath sizes	25	140/
6	2nd	Do. quality shapes, assorted sizes	125	160/
7	2nd	Do. do. do.	73	84/
8	2nd	Good quality shapes, small	280	70/
9	2nd	Do. large Bath sizes	25	100/
10	3rd	Do. assorted sizes	145	105/
11	3rd	Do. do. do.	85	70/
12	3rd	Do. large Bath sizes	25	60/
13	4th	For Stable use, &c.	100	50/

FINE TURKEY SPONGES.

No.	Qty.		Pieces in case, about	Price case.
14	1st	Finest selected Cups, assorted sizes	110	360/
15	1st	Do. do.	60	200/
16	1st	Do. Bath sizes	25	240/
17	2nd	Superior Cups, assorted sizes	110	240/
18	2nd	Do. do.	60	140/
19	2nd	Do. Bath sizes	35	180/
20	3rd	Fine Cups, assorted sizes	110	189/
21	3rd	Do. do.	65	105/
22	3rd	Do. Bath sizes	35	140/
23	1st	Turkey Solids, assorted sizes	100	140/
24	2nd	Do. do.	100	110/
25	1st	Flat Saddle, assorted sizes	50	190/
26	1st	Do. do.	30	120/
27	2nd	Do. do.	50	130/
28	2nd	Do. do.	30	80/

BROWN TURKEY SPONGES.

No.	Qty.		Pieces in case.	Price case.
29	1st	Finest selected, assorted sizes	130	90/
30	1st	Do. do.	70	55/
31	2nd	Superior quality do.	130	63/
32	2nd	Do. do.	70	40/
33	3rd	Slate quality do.	300	25/

FINE EGYPTIAN SPONGES.

A very good-looking and cheap kind of Fine Toilet Sponge; very durable, and soft when wetted.

No.	Qty.		Pieces in case.	Price case.
34	1st	Finest selected, assorted sizes	110	100/
35	1st	Do. do.	210	70/
36	2nd	Good quality do.	110	80/
37	2nd	Do. do.	210	55/

CUBAN SPONGES.

No.			Per case.
54	Fine Cuban	100 pieces	90/
55	Do.	150 "	90/
56	Do.	200 "	90/
57	Do.	400 "	90/
58	Do.	Honeycomb, 1st quality	50 " 90/
59	Do.	do. do.	75 " 90/
60	Do.	do. do.	100 " 90/
61	Do.	do. do.	150 " 90/
62	Do.	do. do.	200 " 90/
63	Do.	do. do.	400 " 90/
64	Do.	do. 2nd quality	100 " 70/
65	Do.	do. do.	150 " 70/
66	Do.	do. do.	250 " 70/
67	Do.	do. do.	400 " 70/

FLORIDA SPONGES.

		Price case
FA	Finest Toilet and Bath	150 pieces 75/
FB	Do. do.	100 " 75/
FC	Do. do.	100 " 100/
FD	Do. do.	100 " 150/
FE	Do. do.	100 " 200/

CUT FLORIDA SPONGES.

No.		Per case.	No.		Per case.
7	Finest Wool (for Stable use)	150 pieces 100/	10	Finest Velvet (for Stable use)	150 pieces 84/
8	Do. do.	120 " 100/	11	Do. do.	120 " 84/
9	Do. do.	100 " 100/	12	Do. do.	100 " 84/

See following pages.

Messrs. R. CRESSWELL & CO. particularly request their Friends, when ordering Goods direct from the Warehouse, to state whether they require Sponges BLEACHED or UNBLEACHED.

R. CRESSWELL & Co., 32 Red Lion Square, London, W.C.

SPONGES ON CARDS.



Sponges on Cards, as quoted below, have now a very large sale. Buyers are cautioned against inferior imitations of our goods. The Cards bearing our Trade Mark will be found vastly superior to all others in the following particulars, viz. value, appearance, and regularity of assortment.

The Cards can be supplied without prices on, for Export.



				Per doz. Cards.					Per doz. Cards
Superior 1d. Honey-comb School, 1 doz. on card				6/	Superior 1d. Turkey School, 1 doz. on card				6/
" 2d.	"	Toilet	"	12/	" 2d.	"	Toilet	"	12/
" 3d.	"	"	"	18/	" 3d.	"	"	"	18/
" 4d.	"	"	"	24/	" 4d.	"	"	"	24/
" 6d.	"	"	"	18/	" 6d.	"	"	"	36/
" 1s.	"	"	½ doz.	36/	" 1s.	"	"	"	72/
" 1s. 6d.	"	"	"	54/	" 1s. 6d.	"	½ doz.	"	54/
" 2s.	"	"	"	72/	" 2s.	"	"	"	72/
" 2s. 6d.	"	"	"	90/	" 2s. 6d.	"	"	"	90/
" 3s.	"	"	⅓ doz.	72/	" 3s.	"	⅓ doz.	"	72/
" 3s. 6d.	"	"	"	84/	" 3s. 6d.	"	"	"	84/
" 4s.	"	"	"	96/	" 4s.	"	"	"	96/
" 5s.	"	"	¼ doz.	90/	" 5s.	"	"	"	120/
" 7s. 6d.	"	"	"	135/	" 7s. 6d.	"	"	"	180/
" 10s.	"	"	"	180/	" 10s.	"	"	"	240/
6d. Sanitary Turkey on bone handles, 1 doz. on card				36/	3d. Egyptian Toilet, 1 doz. on card				18/
					" 4d.	"	"	"	24/
					" 6d.	"	"	"	36/
					" 1s.	"	"	"	72/
					" 1s. 6d.	"	½ doz.	"	54/
					" 2s.	"	"	"	72/
					" 2s. 6d.	"	"	"	90/

* * Special Discount off Carded Goods for large quantities.

SANDLESS SPONGES.

(BY WEIGHT.)

READY FOR USE.

HONEY-COMB SPONGES.

ASSORTED SIZES.

No.	Pieces to the lb.	Price per lb.
1 Finest selected Toilet and Bath shapes, of superior texture	... about 25	35/
Special Bath shapes and sizes	7 to 12	32/ & 35/
2 Best Toilet shapes, fine and strong texture	... about 25	25/
Special Bath shapes and sizes	7 to 12	28/
3 Ordinary Bath shapes, good and fine texture	... about 18	17/
4 Good large Cuts, for Carriage, Household, and Stable use	" 16	14/
4A Superior Cuts for Bath & Toilet use	" 16	18/
5 Medium sizes for general cleaning purposes	... 40	12/
6 Sup. sml. shapes for Nursery use, &c.	" 72	13/

FINE TURKEY SPONGES.

ASSORTED SIZES.

No. Qty.	Pieces to the lb.	Price per lb.
1 Finest selected shapes and quality, about 50	120/ to 200/	
2 First quality, superior texture, good shapes	... 45 80/	100/
3 Second quality, ordinary shapes, fine texture	... 40 60/	80/
4 Ordinary quality and shapes	... 60 40/	60/
5 First quality, Flat saddle	... 10 to 15	40/
6 Second quality, Flat saddle	... 12 " 18	30/
7 First quality, fine Turkey Solids, about 45		50/
8 Second quality do.	... 60	40/
9 Fine Turkey pieces, good quality, 100 to 120		30/

See opposite page.

ESTABLISHED 1850.

R. CRESSWELL & CO., 32 Red Lion Square, London, W.C.

SPONGES ON STRINGS

The Strings of Sponges, for which we quote below, are put in a form which will facilitate the trade of wholesale and general buyers considerably. They are compact, of excellent value, and well adapted for display.

HONEY-COMB SPONGES.

No.		On each string.	Per string.	No.		On each string.	Per string.
1	{ Best Toilet Honey-Comb, 1st quality " ... }	18 pieces,	12/	12	{ Good Toilet Honey-Comb, 2nd quality " ... }	18 pieces,	12/
2	" " " ... "	18 "	18/	13	" " " ... "	18 "	18/
3	" " " ... "	18 "	24/	14	{ Good Bath Large Honey-Comb, 2nd quality ... }	12 "	27/
4	" " " ... "	18 "	30/	15	" " " ... "	12 "	36/
5	" " " ... "	12 "	27/	16	" " " ... "	12 "	48/
6	{ Best Bath Honey-Comb, 1st quality " ... }	12 "	36/	17	{ Good General Large Honey-Comb, 3rd quality ... }	18 "	16/
7	" " " ... "	12 "	48/	18	" " " ... "	18 "	12/
8	" " " ... "	12 "	60/	19	" " " ... "	18 "	14/
9	{ Best Bath Large Honey-Comb, 1st quality ... }	6 "	36/	20	" " " ... "	12 "	18/
10	" " " ... "	6 "	48/	21	" " " ... "	12 "	24/
11	{ Good Toilet Honey-Comb, 2nd quality " ... }	18 "	9/	22	" " " ... "	12 "	30/

FINE TURKEY SPONGES.

No.	Qty.		On each string.	Per string.	No.	Qty.		On each string.	Per string.
23	1st	{ Superior Fine Turkey Cups }	12	18/	37	1st	{ Sup. Small Fine Trky. Cups ... }	3 rnds., 25	18/
24	1st	" " " ... "	12	24/	38	1st	" " " ... "	25	24/
25	1st	" " " ... "	12	36/	39	1st	" " " ... "	25	30/
26	1st	" " " ... "	12	48/	40	2nd	{ Good Small Fine Turkey Cups ... }	" 25	15/
27	1st	" " " ... "	12	60/	41	2nd	" " " ... "	25	20/
28	1st	" " " ... "	12	72/	42	2nd	" " " ... "	25	25/
29	1st	" " " ... "	12	84/	43	Good	Fine Turkey Solids	25	9/
30	2nd	Good Fine Trky Cups	12	15/	44	"	" " " ... "	25	12/
31	2nd	" " " ... "	12	20/	45	"	" " " ... "	25	18/
32	2nd	" " " ... "	12	30/	46	"	" " " ... "	25	25/
33	2nd	" " " ... "	12	40/	47	"	" " " ... "	25	33/
34	2nd	" " " ... "	12	50/	48	"	" " " ... "	25	39/
35	2nd	" " " ... "	12	60/	49	"	" " " ... "	25	48/
36	2nd	" " " ... "	12	72/					

FINE EGYPTIAN SPONGES.

No.			Per string.
50	Best Egyptian	... 20 pieces	... 6/
51	" "	... 20 "	... 9/
52	" "	... 20 "	... 14/
53	" "	small 35 "	... 6/

FINE CUBAN SPONGES.

No.			Per string.
80	Fine Cuban	... 12 pieces	1/6
81	" "	... 12 "	3/
82	" "	... 12 "	6/
83	" "	... 12 "	9/

CUBAN SPONGES.

No.			Per string.	No.			Per string.
68	Cuban Brown	... 12 pieces	3/	74	Cuban Grass	... 12 pieces	3/
69	" "	... 12 "	6/	75	" "	... 12 "	6/
70	" "	... 12 "	9/	76	" "	... 12 "	9/
71	" Wool	... 12 "	9/	77	" "	... 12 "	18/
72	" "	... 12 "	12/	78	" "	... 12 "	24/
73	" "	... 12 "	15/	79	" "	... 12 "	30/

FLORIDA SPONGES.

		Pieces.	Per string.			Pieces	Per string.
A	Finest Wool, Bath sizes	... 12	30/	J	Finest Velvet, Bath sizes	... 12	25/
B	" "	... 12	24/	K	" "	... 12	20/
C	" "	... 12	20/	L	" medium sizes	... 15	18/
D	" medium sizes	... 15	22/	M	" "	... 15	16/
E	" "	... 15	15/	N	" "	... 15	12/
F	" "	... 15	10/	O	" "	... 15	9/
H	" medium small	... 15	7/6	P	" medium small	... 15	7/
I	" "	... 15	5/	Q	" "	... 15	4/6

See previous pages.

SPECIAL TERMS TO SHIPPERS.

DR. JOHN HOOPER'S FEMALE PILL CO., LD.

SPECIAL AGENTS:

MAY, ROBERTS & CO.9 CLERKENWELL ROAD,
LONDON, ENG.,

May, 1887.

Our attention has been called to the fact that spurious Hooper's Pills have been sent to America by some unprincipled persons in this country. We therefore warn merchants and Wholesale Dealers in the United States and elsewhere that they should distinctly order **DR. JOHN HOOPER'S** Female Pills. The Genuine Pills are easily recognised by the name being printed thus—

**DR. JOHN HOOPER**

in White Letters on the British Government Stamp which is round each box. The Pills are also made up in parcels of one dozen boxes, with a distinctive Wrapper calling the attention of Dealers to the Signature on the Stamp.

Should any difficulty occur in obtaining these well-known Pills please apply for price and terms to the

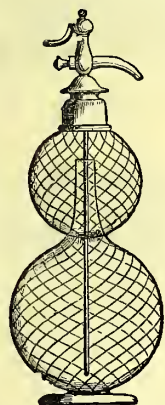
*Special Agents—***MAY, ROBERTS & CO.**

LOOF AHS.

MAY, ROBERTS & CO. beg to inform the Trade that they have received a very fine parcel—from 16 to 18 inches in length—which they will be happy to supply at 4/6 per dozen, cut or uncut, as required.

9 CLERKENWELL RD., LONDON, E.C.

DOWN AGAIN !!!



FEVRE'S SELTZOGENES.

	2 PINT.	3 PINT.	5 PINT.	8 PINT.
Caned, each	7/10	9/2	13/9	23/5
	2 PINT.	3 PINT.	5 PINT.	8 PINT.
Wired, each	7/5	8/9	13/	22/

£2 worth or more, 5 per cent. discount.

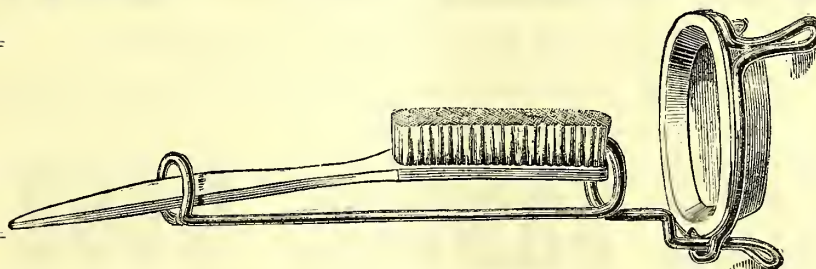
MAY, ROBERTS & CO., 9 CLERKENWELL ROAD, LONDON, E.C.

Telegraphic Address—"FEEDING BOTTLES LONDON."

THE "1886" TOOTH-BRUSH STAND.

4/3

PER DOZEN.



4/3

PER DOZEN.

MAY, ROBERTS & CO., 9 CLERKENWELL ROAD, LONDON, E.C.

Telegraphic Address—"FEEDING BOTTLES LONDON."

"MAY-ROBERTS" WATER BATH, REGISTERED.



This Water Bath will supply a long-felt want amongst Chemists and Perfumers, where small quantities of materials have to be dealt with.

The old form of Water Bath necessitates the use of a second vessel for pouring the melted Pomade, Cream, or other substance into the bottles or jars in which they are sold. In the "MAY-ROBERTS" Water Bath the earthenware bowl can be lifted out of the tin containing the boiling water, the process of cooling being thereby very much expedited, and the contents can be poured into the bottles or jars direct from the bowl. The Bath is also supplied with an earthenware cover.

1 PINT.	5 PINT.	10 PINT.
Each 3/0	5/6	9/6

MAY, ROBERTS & CO.,
9 CLERKENWELL ROAD, LONDON, E.C.

Telegraphic Address—"FEEDING BOTTLES LONDON."

W. J. BUSH & CO.'S ENGLISH DRAWN ESSENTIAL OILS.

Always Uniform and of Exceptionally Fine Quality.

THE ONLY MAKERS OF EVERY KIND OF ENGLISH DRAWN ESSENTIAL OILS.

CONCENTRATED FRUIT ESSENCES.

Five or Six times the Strength of, and Vastly Superior to all others.

SOLUBLE ESSENCES.

Much Stronger and Infinitely Superior in Flavour to all Imitations,
consequently cheaper in use.

FRENCH CREAM GUM EXTRACT.

(Protected by Royal Letters Patent.)

For producing froth on Beers, Aerated Waters, &c., &c.

ENGLISH SANDAL WOOD OIL.

Absolutely Pure and always uniform.

Dr. HENDERSON, of Glasgow, writes:—"It is a pure oil of a high character. I have tried it in numerous cases of gonorrhœa; it was rapidly successful in all. The oil disagreed with no one."

THE LANCET states:—"It is admirably adapted for use as a medical agent."

THE BRITISH MEDICAL JOURNAL states:—"It is unusually free from disagreeable taste."

THE CHEMIST AND DRUGGIST states:—"The fact that Dr. Henderson speaks highly of this oil is the best proof of its therapeutic activity."

ARTILLERY LANE, BISHOPSGATE, LONDON, E.C.

TO AERATED WATER MANUFACTURERS. HAY'S SOLUBLE + ESSENCES

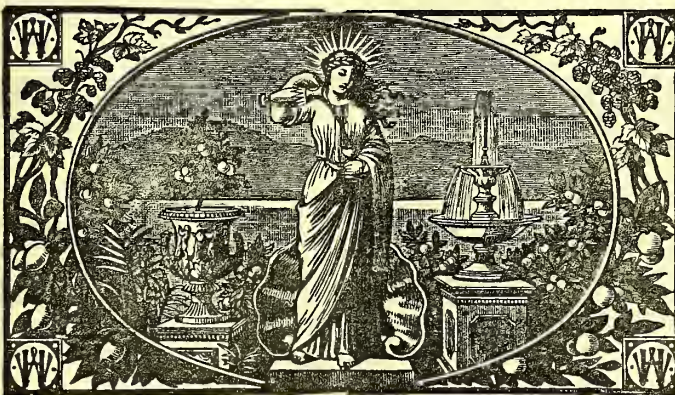
ARE GUARANTEED TO BE THE FINEST IN THE MARKET.

HONOURABLE MENTION:

International Food
Exhibition,
London, October, 1880.

GOLD MEDAL:
Society of Arts, Paris,
1883.

The difference between preparations made from Hay's Essences and those made from the numerous spurious imitations of them bearing the name of Soluble Essences is most marked, and no manufacturer using the latter can compete with one using Hay's Preparations, as is universally known.



GINGER CHAMPAGNE.

(Made from Hay's Essence.)

"An excellent and most agreeable beverage."

The Lancet.

"Mr. Hay has caught the fine aroma of ginger with remarkable success. It is equally sparkling but more refreshing than its rival, the Royal French Beverage."

The Chemist and Druggist.

GINGER ALE.

(Made from Hay's Fortified Essence.)

"It pours out with as fine a 'head' as any glass of ale, and possesses all the fine aromatic flavour of the pure ginger."

The Chemist and Druggist.

HAY'S SOLUBLE ESSENCE OF JAMAICA GINGER.

A Pure Essence of the Finest Ginger, perfectly free from Capsicum. Highly adapted for the manufacture of Transparent Aerated Waters, and for all Dietetic, Medicinal, and Pharmaceutical purposes. Trade Price, 5s. per lb.; 12 lbs. and upwards, 4s. 6d.

HAY'S COMPOUND FORTIFIED ESSENCE OF JAMAICA GINGER. FOR FIRST QUALITY GINGER ALE.

Specially prepared for the manufacture of the very Finest Ginger Ale made, is an addition of Vanilla, Lemon, and other flavours to the above. It imparts, with the exquisite Ginger Aroma of the above-mentioned Essence, a peculiarly fine fruity flavour, combined with the fullest amount of fragrance and pungency. Trade Price, 5s. 6d. per lb.; 12 lbs. and upwards, 5s. Quantity required, five fluid ozs. to each gallon of Syrup, making 106 10-oz. bottles.

HAY'S GINGER ALE EXTRACT. FOR SECOND QUALITY GINGER ALE.

This Extract is strongly recommended for the manufacture of Ginger Ale, to which it imparts Pungency, Colouring, great Brilliancy, and an unusually Fine Ginger Flavour and Aroma, and makes a thoroughly good article. Trade Price, 4s. 6d. per lb.; 12 lbs. and upwards, 4s. Quantity required, three fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

HAY'S GINGER ALE ESSENCE. Highly Concentrated. FOR THIRD QUALITY GINGER ALE.

This Essence, which is a complete Bouquet of Flavours in a highly concentrated state, makes a Ginger Ale possessing an amount of aroma, flavour and quality that will be sure to command a large sale, and that is unsurpassed by the so-called finest Belfast Ginger Ale. Trade Price, 9s. per lb.; 12 lbs. and upwards, 8s. 6d. Quantity required, half a fluid oz. to each gallon of Syrup, making 106 10-oz. Bottles. This Essence will be found most valuable to the general trade.

HAY'S GINGER CHAMPAGNE ESSENCE.

For the manufacture of Ginger Champagne. This Essence is a combination of the finest flavours, and imparts with the Ginger a most exquisite aroma, making a most delicious and refreshing approximation to Champagne. Trade Price, 8s. per lb.; 12 lbs. and upwards, 7s. 6d. Quantity required, ten fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

HAY'S SOLUBLE ESSENCE OF MESSINA LEMONS.

A magnificent Preparation, perfectly soluble, and makes the finest Lemonade obtainable. Trade Price, 8s. 6d. per lb.; 12 lbs. and upwards, 8s. "Added in the proportion of one fluid oz. to each gallon of Syrup, the Soluble Essence imparts the most delicious flavour of the Lemon."—*The Chemists' Journal.*

HAY'S LEMON FLAVOUR.

Perfectly soluble. Trade Price, 5s. per lb.; 12 lbs. and upwards, 4s. 6d. Quantity required, one and a half fluid oz. to each gallon of Syrup, making 106 10-oz. Bottles.

HAY'S HOP ALE ESSENCE.

This Essence is made from the Choicest Hops grown, and is unrivalled for its peculiarly fine Hop flavour and aroma. Hop Ale made from this Essence has the full flavour of the finest Hops, and is a really appetising Bitter Beer. Trade price, 8s. 6d. per lb.; 12 lbs. and upwards, 8s. Quantity required, two fluid ozs. to each gallon of Syrup, making 106 10-oz. Bottles.

W. HAY, MANUFACTURING CHEMIST, **HULL, ENGLAND.**
BEVERLEY ROAD,

Indentors, to prevent disappointment, should specify that the Goods are to be of HAY'S MANUFACTURE.

W. HAY CAUTIONS THE TRADE against the use of those spurious so-called SOLUBLE ESSENCES which, besides having NO GINGER AROMA, are FLAVOURLESS, RANK, and DISAGREEABLE, and are little more than TINCTURES OF CAPSICUM.

ESTABLISHMENT OF BOULEVARD VOLTAIRE, 162 & 164, PARIS.

GOLD & SILVER
MEDALS



AT ALL
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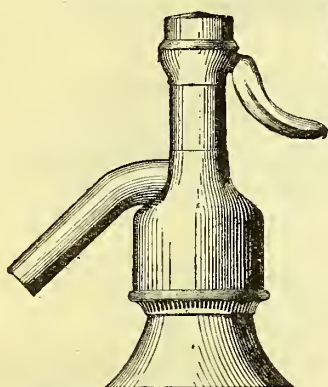
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PATENTED.

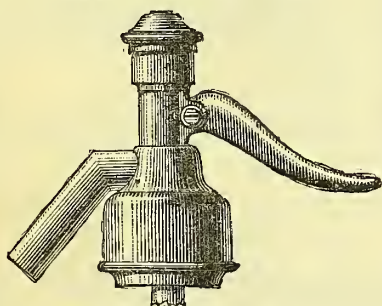
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OF ALL MODELS

Made of Bright or Ordinary
Metal,
and of White or Coloured Glass,
1st Quality.



SMALL LEVER.—No. 5.



LARGE LEVER.—No. 10.



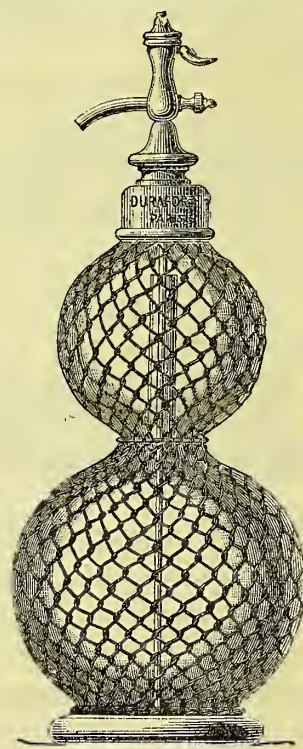
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To Make Seltzer and Vichy
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SELTZATEUR.

New Patent Syphons with Tubes entirely made of Crystal for Lemonade and Potash or Soda Water.

We beg to call the attention of our numerous customers to the quality of the material employed in the manufacture of our Syphons. In the bright quality not a particle of lead is employed. The crystal is of the very best quality; each Syphon is guaranteed to be tested before leaving our works.

SODA WATER MACHINES.

FILLING MACHINES.

Our General Catalogue and List Price will be sent free on application. Large Discount for Quantities.

"THE BEST NATURAL APERIENT."

Persistent attempts are made by interested parties to deceive the public by offering Natural Mineral Aperient Waters with marks, names, and designations very similar to those which are used by the **APOLLINARIS COMPANY, LIMITED**, for the **NATURAL MINERAL APERIENT WATERS** imported by them.

Under these circumstances the **APOLLINARIS COMPANY, LIMITED**, feel compelled to caution the public that the **HUNGARIAN BITTER WATER** sold by the **COMPANY** always bears the name of the **APOLLINARIS COMPANY, LIMITED**, on the Label.

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SODA WATER MACHINERY
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LEVER TAP, MOST SIMPLE, ONLY ONE MOVEMENT.

PRICE £6 15s.

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WITHOUT GASOMETER,

APPLY TO

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BY ROYAL LETTERS PATENT.

HASSALL & Co.'s PHOSPHO-CITRIC ACID

To Supersede Citric & Tartaric for Aerated Waters. It is recommended by the most eminent Physicians in Great Britain.

THE BEST HOUSES IN THE TRADE HAVE ALREADY ADOPTED IT.

It is thoroughly beneficial, and far better suited to the requirements of the Mineral Water Trade; it is free from lead and all other minerals and cheap acids; it is fully £8 per cwt. cheaper than Citric Acid, which mostly contains lead.

WE COMPETE ON QUALITY AND PRICE.

Testimonial from **MR. A. J. MASON**, Chemist, of Bexley Heath.

"Having gone carefully into the matter I have no hesitation in saying that the patentees have in no way overstated the merits of their acid. There is no doubt in my mind that Phospho-citric Acid produces a much higher class beverage—giving, as they say, 'greater body'—the one thing needful in this class of goods; also a fruity character and mellowness I have never been able to secure with the ordinary acids. The aroma is also more pronounced. 'Purity' was my great incentive to giving the acid a trial, but I found 50s. or 60s. (citric at 1s. 7d. per lb.) per cwt. an economy not often secured under such favourable circumstances."

Why pay 2/6 per lb. for Citric, when a purer and more efficient Acid can be bought at about $\frac{1}{3}$ the price?

Beware of Imitations.

Write for Pamphlet and Testimonials.

3-oz. Sample will be sent on receipt of Postage (3 Stamps), or 14 lbs. on approbation.

HASSALL & CO., Great Northern Goods Depot, King's Cross, LONDON.

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AERATED WATERS,

Newport Pagnel.

ESTABLISHED 1835.

SODA, POTASH, SELTZER, AERATED (without Alkali), and LITHIA WATERS,
LEMONADE AND GINGER ALE.

Each Bottle is protected by a Label bearing the Signature of the Firm.

Purity and Excellence of the Water certified by Analysis by Professor ATTFIELD, Ph.D., F.C.S.

MESSRS. BROADHURST & CO.,

PORCELAIN MANUFACTURERS,

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Inside Aerated Water Stoppers (with Rubbers if required), all kinds of Screw Stoppers for Bottles, Plug Stoppers for Feeding Bottles, Screw Stoppers ditto, Feeding Bottle Caps, Shields for Feeding Bottles, Caps for Pomade Bottles in Turquoise, Jet, White, with name and address printed on them.

PRICES ON APPLICATION.

EVANS' SALINE.

EFFERVESCENT.

This preparation is a mixture, in definite proportions, of Howard's Chlorate of Potash, English Tartaric Acid, Bicarbonate of Soda, and a little Cane Sugar. The proportion of these ingredients is fixed, and always remains the same. This, and the pleasant excess of acid, characterise Evans' Saline. A dry mobile powder, dissolving perfectly.

BOTTLES WITH CHEMISTS' OWN NAME, OR IN BULK.

NEW ARTISTIC DESIGNS FOR WRAPPERS FOR THE SEASON.

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THE "LONDON-MADE" SYPHON BOTTLE

(TITLE REGISTERED).

Obtained the HIGHEST AWARD at the International Health Exhibition, London, 1884.



NOTE GROOVE IN BASE (PATENTED).

The high reputation this bottle has achieved is due to the fact of its being in every particular the most perfect yet introduced; and when compared with others in the market it stands pre-eminent. It is most simple in its working parts, therefore the least liable to get out of order; it is the most easily opened, the lightest pressure on the handle being sufficient; it produces a more highly-charged gaseous water than is usually obtained from syphons; it compares most favourably in appearance with any, and the metal top being entirely free from lead, the prejudice against syphon drinks is at once removed, as the liquid passes over pure tin only.

All our Syphons are now fitted at the base with a groove, so that drips from the spout that run down the sides are prevented from soiling the table. See drawing.

NOTE.—Syphons made with our patent foot for collecting excess of liquid dripping from the spout after use are supplied at no extra charge, and will be found of great utility in preventing stains, &c., upon table linen. This is a desideratum long been wanting, particularly for private-house use. Send for sample; forwarded upon receipt of 2s.

Any name, crest, or trade-mark put on the glass by an improved acid process, at from 18s. to 24s. per gross. There is a three-fold advantage in this, as it forms a continual advertisement, is a great ornament, and a preventive of fraud. The plate for engraving costs extra from 5s. upwards, according to the artistic device required.

PRICES (WHITE, BLUE, GREEN, OR AMBER) :—

	By the gross, per doz.	Less than 1 gross, per doz.
Quart size	£1 2 0	£1 4 0
Pint size	1 1 0	1 3 0
Half-pint, Pear shape	1 0 0	1 2 0
Octagonal vases, any colour (including Azure Blue)	1 4 0	1 6 0

Tops, nickel-plated, from 5s. 6d. per doz. extra. Tops, silver-plated and burnished, from 9s. per doz. extra. A charge is made for packing, except when ordered in our patent tin cases (holding one dozen each, price 2s. 6d. each).

Please Note.—B. & F. are the only firm manufacturing Syphons in England that do not supply them filled, and so compete with their customers' trade.

BARNETT & FOSTER,

MINERAL WATER ENGINEERS,

Manufacturing Chemists, and General Providers for the Aerated Water Wine, Beer, and Cyder Trades,

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Send for Price List of Soda-water machinery and Accessories.

BISHOP'S GRANULAR EFFERVESCENT SALTS

ESTABLISHED 1857.

THE LANCET, writing of Bishop's Preparations, says:—"Their excellence is well known."

THE BRITISH MEDICAL JOURNAL says:—"The name of Mr. Bishop is a sufficient guarantee that the article is skilfully prepared."

BISHOP'S

Granular Effervescent Citrate of Caffeine.

The best known remedy for Headache.

This Salt has been most extensively used as a remedy for sick headache, and with such great success, that it may almost be called a specific. It relieves all disorders of nerve-function, and is at the same time most cooling and refreshing.

BISHOP'S GRANULAR EFFERVESCENT CITRATE OF CAFFEINE is sold in bottles at 2s. 6d. each. With each bottle is supplied a wooden Measure Cup, which when filled, but not heaped, gives an exact dose. The Granular Effervescent Citrate of Caffeine should be taken at the commencement of an attack of headache, and the dose should be repeated in an hour if any pain should remain. Testimonials from the most eminent medical men in the profession enclosed with each bottle.

An eminent Birmingham Physician writes:—"I like the EFFERVESCENT CITRATE OF CAFFEINE prepared by Bishop very much. It is a particularly valuable medicine as a morning restorative: and after brain exhaustion, or where sedentary occupation has reduced the tone of the system, it may be taken with perfect safety and great advantage."

BISHOP'S

Granular Effervescent Citrate of Lithia.

The properties of Lithia are antacid, antilithic, and diuretic. Its low combining proportion causes a small dose of its salts to neutralise more acid than similar doses of the other alkalies. The Lithia preparations have been found invaluable in the treatment of uric acid in gouty diathesis. They have a strong affinity for uric acid, and the Citrate of Lithia is exceedingly soluble. The Citrate is less disagreeable to the taste, and less irritating to the stomach than the Carbonate of Lithia, and its advantages are heightened by the mode of preparation now advocated. It is extremely portable and more economical than Lithia Water.

Respecting this preparation, the following letter was recently received from S. BRIGGS, Esq., Ombersley House, Moseley Road, Birmingham:—

"I have suffered very much from gout. Four years ago I was advised by a celebrated physician to try Bishop's Citrate of Lithia. I have taken it at intervals since and derived very much benefit from it. I have recommended it to many of my friends, who have also experienced its beneficial effects."

Dr. CHORLEY, of Dover, writes:—"I find nothing keeps off the gout so well, and I use great quantities of it myself."

In Bottles, 1s. 6d. and 2s. 6d. each.

BISHOP'S

Granular Effervescent Hydrobromate of Caffeine.

One Grain in each Drachm.

This preparation, in which Caffeine is combined with Hydrobromic Acid, has been found of great use in cases of Cerebral irritability, pains in the head, and all forms of nervous headache. It is particularly useful for women and children, and delicate persons generally.

BISHOP'S

Effervescing Portable Mineral Water Salts,

Of Carlsbad, Potash, Seltzer, Pullna, Vichy, &c. Far more convenient, and much more economical, than the bottled waters. With directions for use.

BISHOP'S

Granular Effervescent Citrate of Magnesia.

A perfectly white and delicately clean preparation, prepared from Salts obtained from the Pure Fruit Juices of Lemons and Grapes.

The best Chemists in Great Britain and the Colonies keep no other "Granular Effervescent Citrate of Magnesia" than "Bishop's." The reason for this universal preference is that, since its introduction in 1857, it has been found that none of the imitations of this preparation, originally introduced by Mr. Bishop, have been able to compare with it in reliability as a medicine, or in purity and freshness of flavour as a cooling drink. Full directions on each bottle.

Sold in convenient sizes to suit the Buyer.

Observe the Name on the Seal, the Registered Trade Mark on the Label, and full address of

ALFRED BISHOP, MANUFACTURING CHYMIST,
17 SPECK'S FIELDS, MILE END NEW TOWN, LONDON.

Messrs. JOHN WYETH & BROTHER are Sole Agents in the United States for Mr. Bishop's Preparations, and keep Stock of all the above Products.

Report on Mr. Bishop's Granular Effervescent Preparations. By Prof. Attfield, Ph.D., F.R.S., F.I.C., F.C.S., Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain, Author of a Manual on General Medical and Pharmaceutical Chemistry.

Mr. Bishop's Granular Effervescent Preparations have been known to me for more than twenty years. The maker has submitted to me the formulæ for them; I have seen them compounded at his factory; I have more than once tested the materials he uses; I have many times analysed the finished products. The formulæ are excellent, the ingredients pure, the processes perfect, the products all that can be desired.

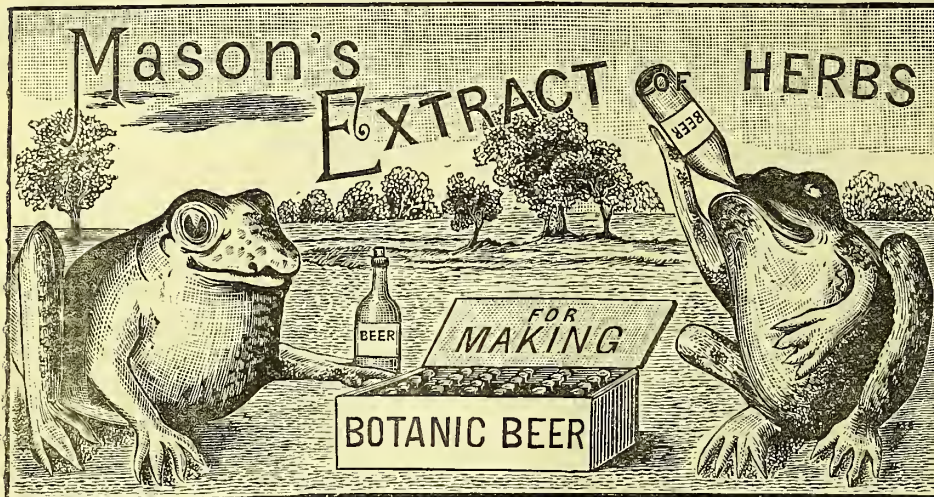
(Signed)

JOHN ATTFIELD.

London, December 6, 1881.

NON-INTOXICATING BEER

PRODUCED AT A SMALL COST AND LITTLE TROUBLE.



Composed of Yarrow, Dandelion, Comfrey, and Horehound, for the immediate production of Herb or Botanic Beer.

This invaluable preparation is carefully compounded from the above-mentioned popular herbs, gathered when in full bloom, and contains all their well-known tonic, stomachic, and blood-enriching properties unimpaired. Notwithstanding many imitations, it stands unrivalled for the production of a most delicious, invigorating, and non-intoxicating beverage, which is not only cooling and refreshing in its nature, but being also a pure and healthy stimulant, is unquestionably the most wholesome and perfect substitute for intoxicating drinks ever discovered * for either summer or winter use.

Sold in Bottles, 6d., 1s., 2s., 5s., & 20s. each. Prices, Circulars, Show Cards, &c., on application.

MASON'S | EXTRACT OR ESSENCE OF HERBS | (REGISTERED).

THE ORIGINAL PREPARATION.

Beware of imitations. Order MASON'S so as to get the Original.

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BEST & SAFEST DENTIFRICE.

OSCAR SUTTON & CO., Preston, Lancashire.



NOTICE.—We have had so many enquiries for O.S. Tooth Blocks *loose without boxes*, that we have put them on the market in packets of one dozen, and they are designated No. 0 (please note this when ordering).

Our O.S. Tooth Blocks, in patent metal boxes, designated No. 1, are now supplied with sunk recess, into which Chemists can affix their own labels. Appropriate labels in dark leatherette, with Chemist's name, &c., in gilt lettering, can be supplied sufficient for 1 gross at 5s. (actual cost to us).

Chemists' names can be stamped on each Block free of charge on any quantity, the only expense being first cost of dies, at 6d. per letter ordered.

A sample, post free, for two stamps.

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CHEMISTS'
TEA
AGENCY.

INCREASE YOUR INCOME.

We are now appointing Agents for our renowned Indian Teas, in $\frac{1}{4}$, $\frac{1}{2}$, and 1 lb. Packets. Gives no trouble; interferes not with ordinary business; and ensures a **COMFORTABLE INCOME.**

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THE
Most Admirable
TEA
@ 2/6 per lb
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THE OLDEST AND MOST SUCCESSFUL.

dos. mounted on a handsome Illustrated Show Card, Retail, 6d. each; Wholesale, 3s. 6d. per doz. It is especially adapted for Export Trade, and may be safely sent to the hottest climates, as each glass tube is hermetically sealed and enclosed in a cardboard case, with full directions for use. N.B.—The above is exempt from Stamp Duty by permission of the Board of Inland Revenue. Wholesale by all the Patent Medicine Houses, or from

B. ROBINSON, Manufacturing Chemist and Distiller, PENDLETON, MANCHESTER.

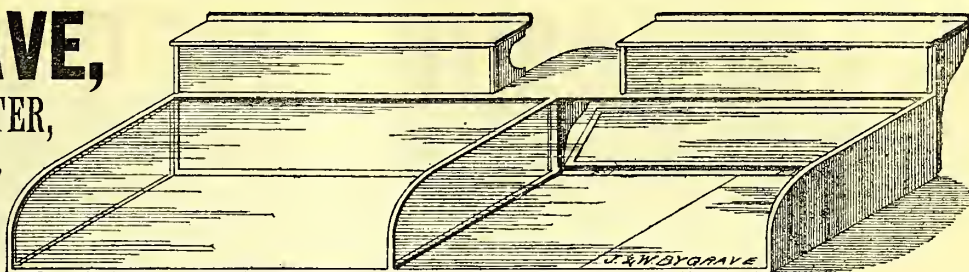
BYGRAVE,

SHOP FITTER,

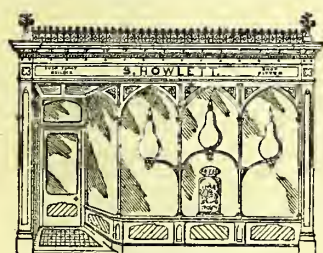
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Wenlock St., Hoxton

LONDON, N.



Bent-top plate-glass Counter Showcase, in French polished mahogany, or ebonized, with two upright mirror plate-glass fronted shelves, and table in centre for serving over, and mahogany falls at back lined with mirror plate glass, inside fitted with crimson velvet trays—if 5 ft. long, 18 in. wide, 8 in. high (total height 13 in.). £5 10s.; 5 per cent. off for cash.

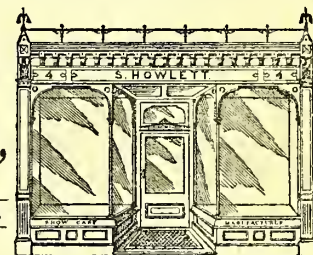


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MEDICAL AND
GENERAL SHOP FITTER,

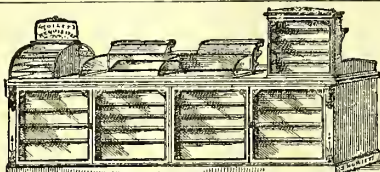
Shop-Front Builder and Show-Case Maker.

EXPORT ORDERS CAREFULLY PACKED AND SHIPPED.



SHOPS FITTED by Contract, in Town or Country, with every requisite, on the most improved principles, and at lowest prices.

NUMEROUS REFERENCES may be obtained of Leading Chemists in all parts of the Kingdom.



A LARGE STOCK of New and Second-hand Fittings and Cases to be sold very CHEAP.

CABINET FITTER to the Pharmaceutical Society of Great Britain.

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SHOW CASE MAKER,

SHOP AND OFFICE FITTER,

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SECOND-HAND COUNTERS, FITTINGS, GLASS CASES, &c., always in Stock.

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MANUFACTURERS OF EVERY DESCRIPTION OF

WATER FILTERS.

NEW PATENT

Manganous Carbon FILTERS.

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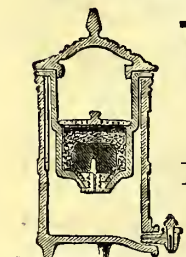
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See Reports, Analyses, &c. Detailed Lists on application.

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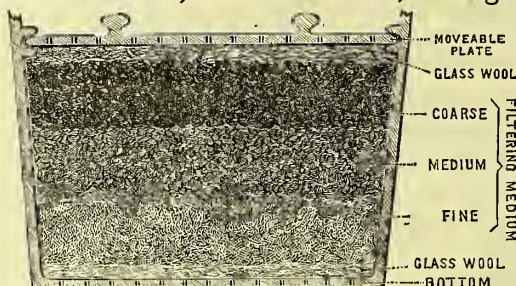
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Proven by Analysis to remove Lead, Lime in excess, Sewage and Bacteria.

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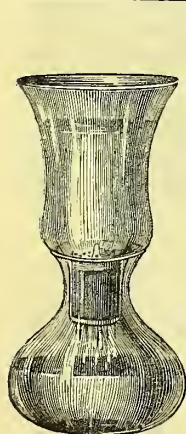
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MAWSON'S NEW FILTERS.

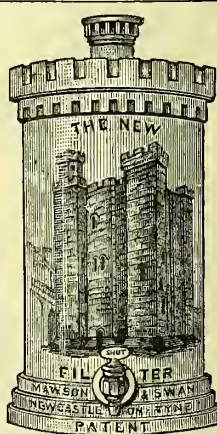
THE ONLY FILTERS PERFECTED BY THE AID OF EXACT ANALYSIS.



Glass (Plain) 4/6.
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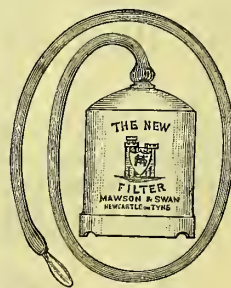
Earthenware (Cream).
1 2 3 4 6 gall.
14, 6, 21, 27, 35, 50/ each



Earthenware (White,
Decorated).
1 2 gall.
35/- 45/- each



G'ass (P'ain), 5/6
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In case, with shoulder cords.

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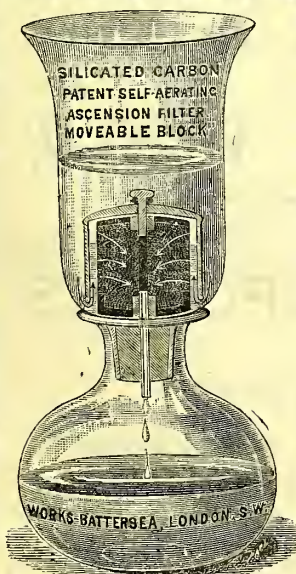
London.—Maw, Son & Thompson; Lynch & Co.; Bentley & Son; Bourne, Johnson & Latimer; Toogood & Son.
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SILICATED CARBON PATENT SELF-AERATING MOVEABLE BLOCK FILTERS.

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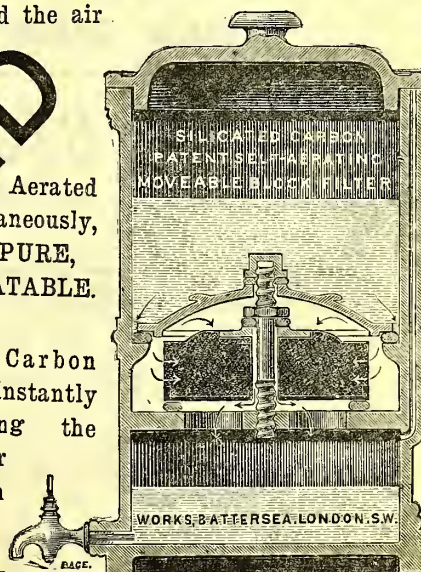


Glass Table Filters.

Each time that the Filter is filled the air under the Aerator Cover is forced in the direction shown by the arrows through the Silicated Carbon Block, so that the Water is & Filtered simultaneously, rendering it **AERATED** **PURE,** **BRIGHT, & PALATABLE.**

The Silicated Carbon Block can be instantly removed, leaving the whole of the Filter **OPEN** for inspection and cleansing.

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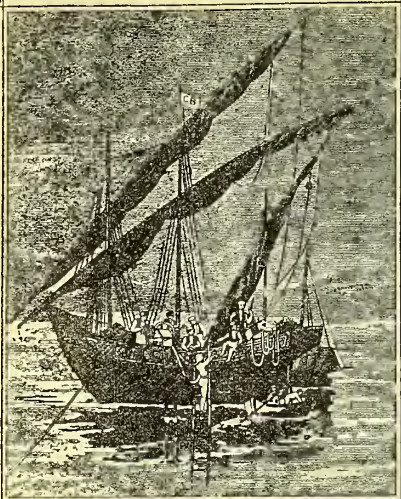


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SPONGES OF EVERY DESCRIPTION DIRECT FROM
GREECE, TURKEY, THE BAHAMAS, FLORIDA & CUBA.

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Buying Establishments at **ÆGENA, GREECE, and SMYRNA, TURKEY.**

Sole Agents for the Cuban Sponge Fishing Company.

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SPONGE

SEASON, 1887.

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LARGEST STOCK IN THE WORLD.

LOWEST PRICES AND BEST ASSORTMENTS.

LARGEST EXPORTERS OF SPONGES

In the United Kingdom.

SPECIAL TERMS TO SHIPPERS.

Goods specially prepared and packed for the American and Canadian Markets. Special series of Cases and Strings for Wholesale Houses.

Write for *ILLUSTRATED PRICE LIST*, containing full descriptions of Sponges by the Bale, Case, Bin, Piece, or Weight, on Strings, Cards, and in blue Card Boxes.

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View of Cresswell Brothers' Sponge Sorting and Packing Stores at Aegina, Greece.

(FROM A PHOTOGRAPH.)

The Island of Aegina is the chief centre of the Sponge trade in Greece, and CRESSWELL BROTHERS' extensive premises are the only ones owned by an English firm and devoted to the trade there.

MEDITERRANEAN SPONGES ON STRINGS.

CRESSWELL BROTHERS make a Specialty of Sponges on Strings, and their goods have a world-wide reputation. Particular attention is given to special assortments and sizes, as distinct from their ordinary styles, for Wholesale houses. A special feature also for Wholesale trade is the packing of boxes and small cases containing stated numbers of pieces and kinds to suit the varied requirements of customers.

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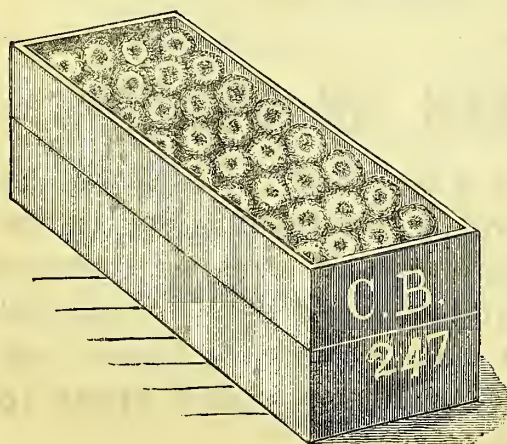
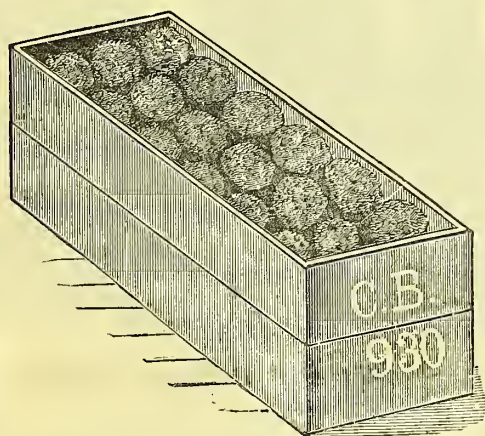
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MEDITERRANEAN SPONGE.

FINE TURKEY, HONEYCOMB, FINE EGYPTIAN.

CRESSWELL BROTHERS hold the largest and most varied stock extant of these goods. They are the only firm having a permanent staff in the Mediterranean. Their sponge collecting, buying, and packing operations are under the direction of a relative, who has had over 26 years' experience in this difficult and most important business, and who is the only resident English buyer in the islands. The advantages that are enjoyed from this special and unique position cannot be exaggerated, as Cresswell Brothers thus obtain their supplies directly from the fishermen, thereby saving two profits, and are consequently enabled to offer their goods in better assortments and at lower rates than any other house.



MEDITERRANEAN SPONGES IN CASES. SANDED OR SANDLESS.

TURKEY HONEY-COMB SPONGES.

No.	Qty.		Pieces in Case about	Price Case
1	1st	Finest selected shapes, assorted sizes	120	240/
2	1st	Do. do.	75	140/
3	1st	Do. do.	45	80/
4	1st	Small selected shapes	280	140/
5	1st	Superior do. large Bath sizes	25	140/
6	2nd	Do. quality shapes, assorted sizes	125	160/
7	2nd	Do. do.	73	84/
8	2nd	Good quality shapes, small	280	70/
9	2nd	Do. large Bath sizes	25	100/
10	3rd	Do. assorted sizes	145	105/
11	3rd	Do. do.	85	70/
12	3rd	Do. large Bath sizes	25	60/
13	4th	For Stable use, &c.	100	50/

FINE TURKEY SPONGES.

14	1st	Finest selected Cups, assorted sizes	110	360/
15	1st	Do. do.	60	200/
16	1st	Do. Bath sizes	35	240/
17	2nd	Superior Cups, assorted sizes	110	240/
18	2nd	Do. do.	60	140/
19	2nd	Do. Bath sizes	35	180/
20	3rd	Finest Cups, assorted sizes	110	180/
21	3rd	Do. do.	65	105/
22	3rd	Do. Bath sizes	35	140/
23	1st	Turkey Solids, assorted sizes	100	140/
24	2nd	Do. do.	100	110/
25	1st	Flat Saddle, assorted sizes	50	190/
26	1st	Do. do.	30	120/
27	2nd	Do. do.	50	130/
28	2nd	Do. do.	30	80/

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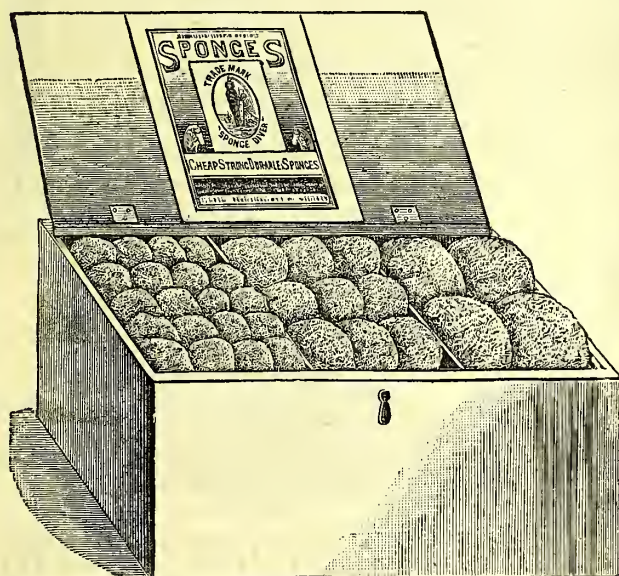
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2 & 13 RED LION SQUARE, LONDON, W.C.

SPONGES IN BIN CASES

GREAT NOVELTY A SHOW CASE FOR NOTHING!

These Bin Cases are most attractive and contain very saleable and profitable assortments.



CUBAN SPONGES IN BIN CASES.

Cuban Fine—		£	s.	d.
Bin case containing	150 pieces ...	2d.	5	0
	125 „ ...	4d.		
	50 „ ...	8d.		

Cuban Honeycomb, No. 1—		£	s.	d.
Bin case containing	100 pieces ...	3d.	5	0
	100 „ ...	6d.		
	25 „ ...	1/		

Cuban Honeycomb, No. 2—		£	s.	d.
Bin case containing	150 pieces ...	2d.	5	0
	150 „ ...	4d.		
	50 „ ...	6d.		

ASSORTED CUBAN SPONGES.

Bin case containing		£	s.	d.
{	110 pieces Cuban Fine ...	4d.	6	0
	50 „ „ „ ...	8d.		
	100 „ „ Cuban H C ...	3d.		
	50 „ „ „ „ ...	6d.		

MEDITERRANEAN SPONGES IN BIN CASES.

Bin case containing		£	s.	d.
{	100 pieces Egyptian ...	3d.	7	10
	100 „ „ „ „ ...	6d.		
	50 „ „ Honeycomb ...	6d.		
	50 „ „ „ „ ...	1/		

Other Assortments can be had to suit
Buyers' requirements.

Buyers who wish to purchase **FIRST HAND** must buy from **CRESSWELL BROTHERS**,
2 and 13a Red Lion Square, London, W.C.

Vide SPECIAL PAMPHLET for PRESS OPINIONS on

CRESSWELL BROTHERS' CUBAN AND OTHER SPONGES.

[See a'so three preceding pages.]

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CONCENTRATED
PEPTONISED COCOA AND MILK
AND CONCENTRATED
PEPTONISED MILK
(PATENT).

These two preparations are made with pure rich PRE-DIGESTED Country Milk, and, by mere dilution with hot water, afford a delicious restorative beverage, the assimilation of which requires no digestive effort.

SAVORY & MOORE, LONDON.

Tins. 1s. 6d. and 2s. 6d. Obtainable Everywhere.

To H.R.H. The Prince of Wales, The Empress of Germany, &c.

BRAND & CO.'S
PEPTONES
OF
BEEF,
MUTTON,
VEAL,
AND
CHICKEN.



THIRTY-THREE PRIZE MEDALS AWARDED to the FIRM.
GOLD MEDALS,
EDINBURGH AND LIVERPOOL EXHIBITIONS.

FRY'S
Pure Concentrated
COCOA

Prepared by a new and special scientific process securing extreme solubility, and developing the finest flavour of the cocoa.



TRADE MARK.

J. S. FRY & SONS, BRISTOL, LONDON, & SYDNEY, N.S.W.

PERCY'S WHITE SKIN PELLETS

Are unrivalled for producing a delicate and beautiful complexion. They purify the blood, cure all cutaneous diseases with marvellous rapidity, and impart to the skin throughout the enchanting bloom of health.

PERCY'S WHITE SKIN LOTION

Clears, beautifies, and preserves the complexion. Removes pimples, blotches, redness, roughness, chaps, and all cutaneous affections, rendering the skin soft, white, and delicate.

DR. BAILY'S TINY LIVER PILLS.

A certain cure for derangements of the liver; relieve distress from heavy eating, indigestion, and dyspepsia.

MADAME CLEMENTINE'S FEMALE PILLS.

These Pills are simply invaluable for females of all ages; a few doses will carry off all humours, and bring about all that is desired.

A Liberal Discount to the Trade. Circulars and Particulars on application.

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15 Nicholas Lane, LONDON, E.C.,
MANUFACTURING CHEMISTS AND SUNDRIESMEN.

34

RANDALL'S BLACK CURRANT LOZENGES.

Plain Black Currant, old square	..	..	2 6
" " " rough oval	..	..	2 6
Black Currant and Ipecacuanha	..	..	2 6
Black Currant and Tannin..	..	..	3 0
Black Currant Voice (warm astringent)	..	..	3 0
Black Currant Cough Lozenges	..	..	3 6

(* Ipecac. and Morph., strength as "B. P.")

In Bottles, 1 lb., 2 lbs., 4 lbs., and 7 lbs. For Exportation, in soldered tins, of any size. From EDWARDS, London; through any Wholesale House; and from the Manufacturers,

RANDALL & SON, Southampton,

Who will forward Samples by post on application.
Also BROWN COUGH LOZENGES, 2s.; 7 lbs. stamped with name free,
MUSK LOZENGES (Special), 2s. 6d.

N.B.—Medical Lozenges of every kind,
Including those of the Pharmacopœia of the Hospital for Diseases of the Throat, London.

"PUT MONEY IN THY PURSE."—*Shakespeare.*

TYRER'S SAUCES

AND

"BOROUGH" KETCHUP.



DO NOT THROW MONEY AWAY
BUT WRITE
FOR A
FREE SAMPLE OF

Tyrer's
"BOROUGH"
Ketchup

SENT FREE
TO ANY ADDRESS

SILVER MEDAL
LONDON.



"Borough" Ketchup—

Large Bottles (1d. size) in dozen parcels	...	...	...	...	...	per gross	5/6
In $\frac{1}{2}$ gross, and 1 gross boxes	...	...	...	...	...	"	6/
$\frac{1}{4}$ Bottles (flat reputed Half Pints)	...	...	...	...	...	"	16/
Imperial Half Pints (round stoppered bottles)	...	...	...	...	...	"	32/
In $12\frac{1}{2}$ gallon casks (casks free)	...	...	...	...	...	each	20/

Worcester, Harvey, Yorkshire, or Reading Sauce—

Large Bottles (1d. size) in 1 dozen parcels	...	...	...	...	...	per gross	5/6
In $\frac{1}{2}$ gross, and 1 gross boxes	...	...	...	...	...	"	6/
$\frac{1}{4}$ Bottles (reputed Half Pints)	...	...	...	...	...	"	16/
$\frac{1}{2}$ Bottles (reputed Pints)	...	...	...	...	...	"	26/

TYRER'S Extra Quality, Worcester and Yorkshire Sauce—

Large Bottles (1d. size) in 1 dozen parcels	...	...	...	...	...	per gross	6/6
In $\frac{1}{2}$ gross, and 1 gross boxes	...	...	...	...	...	"	7/
$\frac{1}{4}$ Bottles (reputed Half Pints, round stoppered bottles)	...	...	...	...	...	"	24/
Imperial Half Pints	...	...	...	...	...	"	36/

TYRER'S CAFE SAUCE HAS NO EQUAL.

Half-pint square bottles, stoppered, beautifully got up,
per gross **48/**

Samples of any kind sent Free of all Cost by—

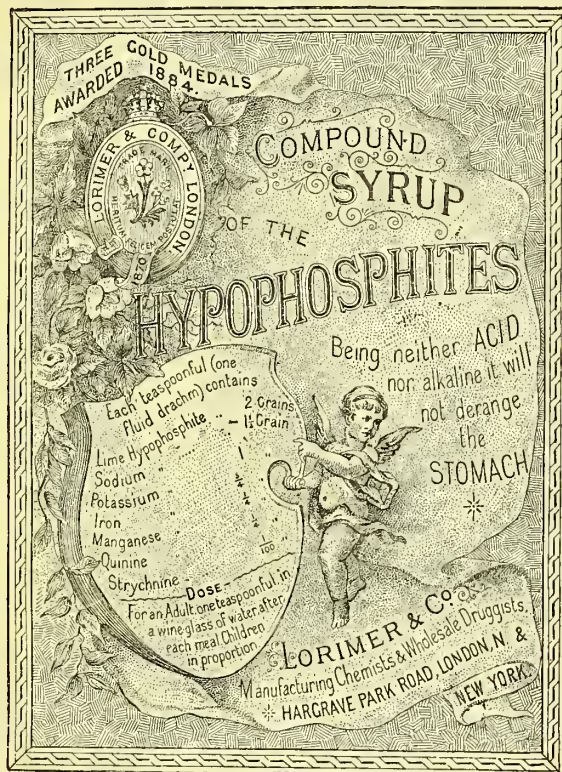
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Scotch Agency: 115 WEST NILE STREET, GLASGOW.

Also through BURGOYNE & CO., Coleman Street, E.C., and W. & C. PANTIN, Upper Thames Street, E.C.

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NEUTRAL or very slightly alkaline. DEFINITE, Original, and stated Formula.

PERMANENT. Does not deposit its active ingredients.

PRICE MODERATE. Deserving and receiving the support of the Medical Profession.

SOLD IN 1 lb. BOTTLES FOR DISPENSING, 4s. EACH.

*Stamped Bottles of 36 Doses, 2/9 each;	24/- doz.
" " 72 " 4/6 "	42/- "
" " 140 " 6/- "	60/- "
" " 260 " 10/- "	96/- "

* These Sizes, if Unstamped, are 3d., 6d., and 1s. each less.

For bona-fide Charitable Institutions a liberal discount is allowed.

CAUTION. — Lorimer's Hypophosphites is only genuine when bearing above label. Spurious imitations are being offered.

Lorimer's Coca Wine	Retail 4s. each; 29s. doz.
" Coca-Kina (Sparkling)	9d. " 6s. "
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<i>A specific for Sickness of Pregnancy and much appreciated by Ladies.</i>	
" Cocaine Lozenges	1s. 1½d. " 8s. 6d. "
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Gold Medal, Exposition du Travail, Paris, 1885. First-Class Certificate and Gold Medal, Calcutta International Exhibition, 1883-1884. Medal, Sanitary Institute of Great Britain, 1882. Silver Prize Medal (Highest Award) National Health Society's Exhibition, 1883. Award, International Medical and Sanitary Exhibition, 1881.

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(SEE THEIR ADVERTISEMENT, PAGE 86.)

STROPHANTHUS.

TINCTURE AND TABLOIDS.

The New Heart Tonic.

Viewed at a distance in its African home, the body of the Strophanthus, spiral in form, resembles that of a huge boa constrictor. Its rod-like branches creep up the nearest trees, and on them are pendent pods containing seeds; these pods grow in pairs, and have the appearance of a huge pair of horns, attached by their juncture to a slender twig.

The seeds of the Strophanthus are the most active part of the plant, indeed the most active poison the natives of Africa possess. It is with a paste made from them that the African besmears his arrows, making it more adhesive with the bark from a species of Liliaceæ. Our agent in Africa writes: "Game wounded by an arrow thus poisoned dies at once, seldom being able to run over 100 yards."*

After investigating the properties of the drug for many years, Professor Fraser specially called the attention of the profession to Strophanthus at the last meeting but one of the British Medical Association. The Professor pointed out that in difficulties and embarrassments of the circulation depending upon a central cause, strophanthus acts on the heart alone without increasing the organ's difficulties, by closing the blood-vessels into which it must empty itself, as does digitalis. During the last eighteen months the action of the Strophanthus in cardiac affections has been tested by several of the most careful observers, and the uniformly satisfactory results obtained with it created so great a demand that at one time the supply was inadequate to satisfy it. We are now, however, provided with a goodly supply of seeds and pods of excellent quality, and although the demand for the Strophanthus is more general than ever, and seems greatly on the increase, we believe that the profession will have no further trouble in obtaining as much of the drug as they need.

As the handling of such a powerful poison in liquid form by patients is not free from danger, and as there is liable to be a variation in the dose taken each time, for it may not always be measured with absolute precision, we have prepared the drug in the form of tabloids. Furthermore, as contributing perhaps to the greater security from accident of those who may use the former preparation, we have changed the proportions of our tincture from one in eight (as formerly

prepared) to Dr. Fraser's new formula of one in twenty. The dose of the tincture is now from two to ten drops. The Tabloids of Strophanthus, as formerly prepared, contained two drops of the former tincture; the new tabloids will contain four drops of the new tincture.

As illustrative of the extreme usefulness of Strophanthus we venture to give the following notes culled—but abridged for want of space—from Dr. Fraser's interesting paper, a copy of which we shall be pleased to supply gratis to any member of the medical profession upon request.

CASE I.—Mitral regurgitation with dilatation. There were distressing dyspnoea, œdema of lungs and feet, and enlargement of liver and spleen. Under Strophanthus, there was great improvement in the circulation and renal functions, and a restoration to "comparatively good health."

CASE II.—Mitral stenosis and regurgitation (of three years' standing in boy 14), with orthopnoea, œdema, ascites, præcordial tenderness, nausea and diarrhoea. Heart reached from second to sixth intercostal space; transverse diameter, $8\frac{1}{2}$ inches. Patient convalescent in fortnight with Strophanthus.

CASE III.—Mitral and tricuspid regurgitation in lad 16, with œdema, anasarca, dyspnoea, nausea, vomiting, cardiac pain and palpitation, and lessened urine. "Patient improved greatly" with Strophanthus.

CASE IV.—Mitral regurgitation following acute rheumatism (in female 33), with great obstruction to circulation, anasarca, a rapid, feeble, almost uncountable pulse, and scanty albuminous urine. Under Strophanthus, pulse and urine became almost normal in a few days.

CASE V.—Mitral regurgitation in female 22, with uncountable wrist pulse, and over 150 heart beats per minute. In 40 minutes after a hypodermic of Strophanthin "the patient volunteered the remark that she had not felt so little distress for six weeks."

CASE VI.—Mitral stenosis and regurgitation. Strophanthus soon set the circulation right, removing visceral engorgement and œdema, and producing a copious flow of urine.

In the last two cases trials with digitalis seemed to demonstrate its comparative inferiority.

Small doses of Strophanthus increase the systole and slow the heart's contractions. Compared with digitalis, it exerts a more powerful influence upon the heart, and produces fewer secondary actions, affecting less powerfully the blood-vessels. Secondly, it increases blood tension, produces diuresis, and reduces temperature. It is not cumulative.

* It is said that "the flesh is eaten without any evil effect ensuing; the only precaution taken is to squeeze the sap out of a piece of the bark of the Baobab tree into the wound made by the arrow. The sap of this bark is believed to neutralise any evil effect that may result from the poison being more plentiful in the vicinity of the wound."

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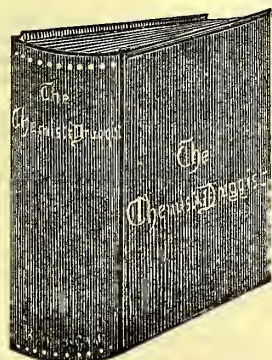
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For Australasian subscribers the subsidiary journal THE CHEMIST AND
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ADVERTISEMENTS of employers and assistants can now be received by us up to the first post on Friday mornings, and will be inserted in the current week's issue.



closure, nor by any of the carriers, as in the latter case we have to pay for booking.

THE donations to the Benevolent Fund announced at the decennial dinner held on Tuesday amounted to 1,100*l*. The full list of contributors is published on pages 628 and 629.

THE BRITISH PHARMACOPŒIA.—At the meeting of the General Medical Council last week a report from the Pharmacopœia Committee was submitted and was ordered to be entered in the minutes. The nature of the report did not transpire.

THE result of the election to the Pharmaceutical Council is that Mr. G. T. Wilkinson-Newsholme, of Sheffield, and Mr. Gwilym Evans, of Llanelli, are introduced to the Council in the place of Mr. Borland (who did not stand), and Mr. E. N. Butt, who retires defeated. The effect is that for next year Scotland will only have one representative, and that for the first time Wales has one. London will have seven members and the rest of the country twelve.

DIARY FOR NEXT WEEK.

Tuesday, May 24.

Royal Institution, at 3 P.M. Professor Horsley, on "The Modern Physiology of the Brain, and its relation to the Mind."

Linnean Society. Anniversary Meeting at 3 P.M.

Thursday, May 26.

Royal Institution, at 3 P.M. Professor Dewar, F.R.S., on "The Chemistry of the Organic World."

Friday, May 27.

Royal Institution, at 3 P.M. Edward E. Klein on "Etiology of Scarlet Fever."

Foreign and Colonial.

AUSTRIAN MINERAL WATERS IN EGYPT.—The consumption of mineral waters is very large in Egypt, and is, of course, stimulated by the climatic conditions of the country and the scarcity of good potable water. Ferruginous, carbonic acid, and purgative waters are particularly in demand. Until a few years ago the entire consumption was supplied by France, but at present Austrian waters are becoming very popular, and their consumption is increasing annually, especially as regards Carlsbad, Giesshübler, Rohitsch, and Rakoczy water. But among the carbonic acid waters St. Galmier still occupies the first place, probably on account of its cheapness, while Orezza is the most saleable of the ferruginous waters.

THE BOMBAY VETERINARY COLLEGE.—The rules of the newly-established Bombay Veterinary College have been recently published, and contain the following:—"The diploma of qualification as 'Graduate of the Bombay Veterinary College' is awarded after a full course of study at the college, and passing the examinations of graduation. The course of study for the diploma extends over at least three collegiate years. Each year comprises nine teaching months, and is divided as follows:—Long Session—November 1 to April 30. Vacation (Spring)—May 1 to June 15. Short Session—June 16 to September 15. Vacation (Autumn)—September 16 to October 31. The scholastic year commences with the short session."—*Indian Agriculturist*.

PROPOSED MODIFICATION OF THE GREEK CUSTOMS TARIFF.—It is proposed to modify the present Greek customs tariff in several particulars. The alterations in view principally affect chemical and pharmaceutical products, and are mostly in the direction of increased protection. The following are the principal articles affected, the rates now levied being given in parentheses:—Roots, leaves, and camphor, 0.50 drachma per oke; cantharides, 1 dr. per oke (2 dr.); opium and castoreum, 8 dr. per oke (2 dr.); quinine, free to treaty nations (0.10 dr. per drachma weight); all medicines not specially denominated, 0.20 dr. per oke; potash and soda free; chloride of lime, vitriol, copper sulphate, 0.05 dr. per oke; acids and chemical products not otherwise denominated, 0.20 dr. per oke. An oke equals 2.8 lbs., and a drachma (weight) 0.111 oz. A drachma (money) is equal to 9*½**d*.

CORNER FOR STUDENTS.

CONDUCTED BY RICHARD J. MOSS, F.C.S.

QUALITATIVE ANALYSIS.

THE subject of the next exercise will be a mixture of *two* salts. It is to be submitted to a thorough systematic examination, such as is required to detect all its constituents and to demonstrate the absence of other substances. In reporting students are to give a brief account of the analysis, with a summary of the results obtained, distinguishing as far as possible any accidental impurities which may be detected from the chief constituents of the mixture.

Students' applications for a portion of the mixture of two salts will be received up to Wednesday, May 25, and the samples will be forwarded on the 27th.

Students' reports will be received up to June 15.

REPORTS.

The subject of the last exercise was a mixture consisting of equal parts of calcium phosphate and ferrous sulphate.

The calculated composition of this mixture was:—

Fe ..	..	..	..	..	..	10.07
Ca ..	..	..	..	..	..	19.36
SO ₄ ..	..	..	..	..	..	17.27
PO ₄ ..	..	..	..	..	..	30.64
H ₂ O ..	..	..	..	..	..	22.66
						100.00

There were thirty-five reports received, and of these there were twenty-two in which calcium is recorded as absent, while the phosphoric radicle was not detected by seven students, and its sulphuric radicle was not detected by two. In every case iron was found present. It is worthy of note that ten students reported magnesium as one of the chief constituents of the mixture, and three recorded the detection of aluminium.

The difficulty in this case arose from the presence of a phosphate of one of the alkaline-earth metals. The results show that if a soluble phosphate—such, for example, as sodium phosphate—had been present, the composition of the mixture would have been correctly ascertained in nearly every case, though not always by proper methods. But, in consequence of calcium being a constituent along with the phosphoric radicle, that metal appeared in the wrong group, and altogether disturbed the ordinary course of analysis. This is a difficulty for which the student should be prepared. Calcium phosphate is not by any means an uncommon salt, and there ought to be no difficulty in detecting it.

When the substance under examination must be dissolved in an acid before a solution can be obtained, or if it is already in solution, and that solution is acid, it must be considered whether the neutralisation of the acid by the addition of ammonia for the purpose of precipitating the iron group will not throw down the acid as well as the metallic radicle. The present case affords a very good illustration of the difficulty that may arise. Calcium phosphate, not being soluble in water, was brought into solution with the aid of an acid. When ammonia was added, the liquid was no longer capable of retaining the phosphate in solution, and accordingly it was precipitated along with ferric hydrate and some ferric phosphate. The ordinary method of analysis cannot be applied to such a mixture. Before satisfactory results can be obtained the phosphoric radicle must be separated from the calcium. One of the commonest methods

employed depends upon the fact that ferric phosphate is not soluble in acetic acid, whereas the phosphate of calcium and the other alkaline-earth metals are soluble in this acid. For the details of the method, we must refer students to their text-books. It may be asked, How is the student to know when this departure from the ordinary course is to be followed? The answer is, Whenever the ammonia precipitate contains a phosphate, for the purpose of detecting which it must of course be specially tested.

There are other salts of less frequent occurrence which would create a similar difficulty; the most important are—oxalates, borates, fluorides, and silicates. When any of these are found, a special method for analysis must be resorted to.

PRIZES.

The First Prize for the best analysis has been awarded to J. G. WALLBRIDGE, Mr. Vaughan, chemist, Ellesmere.

The Second Prize has been awarded to ARTHUR D. HEARNshaw, Rockferry, Birkenhead.

Marks Awarded for Analyses.

J. G. Wallbridge (1st prize) ..	95	W. A. Greaves ..	..	..	60
A. D. Hearnshaw (2nd prize) ..	93	J. S. Kay ..	..	..	60
Soda ..	..	Skinner ..	..	..	60
Limetta ..	..	S. T. Reid ..	..	..	60
Alfred Shaw ..	..	Chloroform ..	..	..	50
F. Park ..	..	Exogenes ..	..	..	50
Euonymin ..	..	W. C. Marshall ..	..	..	40
Veritas ..	..	Nil Desperandum (London) ..	..	..	40
W. H. P. ..	..	J. C. Kidd ..	..	..	40
Hugh Miller ..	..	B. E. N. ..	..	..	40
J. Austin ..	..	G. Evans ..	..	..	35
Gradation ..	..	Harry Cook ..	..	..	30
Crucible ..	..	Gep ..	..	..	30
J. A. Garibaldi ..	..	Philip Smith ..	..	..	30
Lewis Ough ..	..	G. E. S. S. ..	..	..	25
J. O. S. ..	..	Nil Desperandum (Chesham) ..	..	..	20
Ignoramus ..	..	Omega ..	..	..	20
Dixon ..	..			

TO CORRESPONDENTS.

Prizes.—The students to whom prizes are awarded are requested to write at once to the Publisher, naming the book they select, and stating how they wish it forwarded.

Any scientific book that is published at a price not greatly exceeding half-a-guinea may be taken as a first prize.

Any scientific book which is sold for about five shillings may be taken as second prize.

. All communications should include the names and addresses of the writers.

GRADATION.—If you found phosphoric acid in quantity in the filtrate after the addition of ammonia to the hydrochloric-acid solution, it must have been because ammonia had not been added in excess. It is true that calcium phosphate is slightly soluble in solutions of ammoniacal salts, but this would only account for traces of phosphoric acid in the filtrate.

J. A. GARIBALDI.—You observe that the precipitate with sodium phosphate was flocculent, and that this indicated magnesium. The peculiarity of ammonio-magnesium phosphate is that it is crystalline, not flocculent.

LEWIS OUGH.—After digesting with ammonium acetate and acetic acid, you found the filtrate free from phosphoric acid—a result which would be impossible, as there was not enough iron present to combine with all the phosphoric acid, and calcium phosphate would remain in solution.

DIXON.—Unless the boiling with sodium carbonate were continued for some time, only a trace of phosphoric acid would pass into solution; consequently, you may not have obtained any indication of phosphoric acid with the test you employed.

W. A. GREAVES.—It is strange that you obtained no indication of calcium in the preliminary examination, which you seem to have conducted with considerable care.

SKINNER.—The method you employed gave accurate results in the hands of other students. You probably added too little ammonia to the acid solution to precipitate all the phosphates; so that the precipitate consisted almost exclusively of iron phosphate.

W. C. MARSHALL.—The hydrochloric-acid solution of the powder gave an abundant precipitate with barium chloride. You must surely have mistaken the reagent used in this test.

NIL DESPERANDUM (London).—The presence of a phosphate was the cause of all your trouble. Calcium appeared with the iron group instead of remaining in solution until ammonium carbonate was added.

J. C. KIDD.—The change of colour on heating the powder was not in the least like charring, and there was a total absence of the peculiar odour so characteristic of tartrates on ignition.

B. E. N.—You do not state what the green colouration was that led you to conclude that chromium was present. You do not explain how you prepared the solution which you tested for the acids. A much more explicit report is desirable.

G. EVANS.—Your notes are extremely brief; they cannot be accurately described as a report of the analysis.

HARRY COOK.—The precipitate with lead acetate could not have been soluble in nitric acid, as you state (unless the acid was concentrated, and in great excess), as it must have contained lead sulphate.

GER.—The presence of a very small quantity of a citrate would have produced an odour like burnt sugar when the powder was heated in a dry test-tube, and you do not record having observed this.

PHILIP SMITH.—To find out the cause of your error in the test for nitric acid, it will be necessary to repeat the test with solutions of known composition.

G. E. S. S.—It is incredible that the precipitate obtained with barium chloride in testing for acids dissolved completely in nitric acid. Part of it consisted, no doubt, of barium phosphate, and would have dissolved at once; but, under the conditions you describe, there must have been a quantity of insoluble barium sulphate present.

NIL DESPERANDUM (Chesham).—Your analysis was most incomplete. The method you followed seems to be designed for the detection of only one metal and one acid radicle.

OMEGA.—It is difficult to comprehend how you managed to observe such a variety of colours on heating the powder.

decided, on the motion of Mr. W. W. Savage, seconded by Mr. E. F. Salmon, that two prizes of the value of 21s. and 10s. 6d. be this year offered by the Brighton Association of Pharmacy to students under twenty-one years of age attending the night classes in chemistry at the Brighton School of Science and Art. Mr. Salmon proposed and Mr. W. W. Savage seconded, and it was carried unanimously:—

That, with the object of promoting a spirit of mutual goodwill, and affording an opportunity of social reunion, it is desirable that a dinner should be held at such a time as may be deemed convenient, to be the first of a series of annual reunions amongst the chemists of Brighton and Hove, and that a small committee be appointed to carry this resolution into effect.

The following gentlemen were appointed on the committee:—Messrs. Billing, Caton, Salmon, and Leigh. A vote of thanks to the chairman terminated the proceedings.

CARLISLE.

CHILD POISONED BY NITRIC ACID.—On Saturday, May 14, a child, daughter of William Fisher, Charlotte Street, Carlisle, died at the Cumberland Infirmary from the effects of drinking nitric acid. It appears that the child had the night before gone into its grandfather's, next door, and had found the bottle containing the poison, and had, unobserved, swallowed a quantity under the idea that it was "Spanish" water. The nitric acid had been used in the house for cleaning purposes.

DONCASTER.

THE COST OF DRUGS.—At a meeting of the Doncaster Board of Guardians on Saturday, Mr. Wilton, one of the members, inquired what was to be done under the following circumstances. There had been an account rendered before the Finance Committee, and, as the charges were thought to be excessive, the cheque was not signed. The account had been a second time presented and returned. The Clerk said he had suggested the account should be taken to the tradesman to be reduced, and then be again presented. In answer to the chairman, Mr. Wilton said it was not a contract, but the committee thought too much had been charged for the drugs. The Chairman said he could not say what was to be done. Mr. Wilton: We are not bound to pay charges notoriously excessive. The Chairman: That's a matter of opinion. Mr. Wilton: It is a matter of market value. The Chairman: Drugs, as far as my experience goes, are always excessively dear. (A laugh.) Mr. Wilton: Some articles included in the drugs are a very simple matter indeed. The Chairman: Then get the bill revised; there is no cheque signed.

DOVER.

DOVER CHEMISTS' ASSOCIATION.—The quarterly meeting was held at the Apollonion Hall on the 11th inst., Mr. J. F. Brown in the chair. The minutes of the previous meeting having been read and confirmed, a circular issued by the executive of the Chemists and Druggists' Trade Association of Great Britain was discussed, and the following resolution was carried unanimously:—

It is desirable that an association should be maintained for protecting the trade interests of chemists and druggists on the lines of the circular issued by the Executive of the Chemists and Druggists' Trade Association of Great Britain on May 6, and this meeting hereby approves of the same.

The instructions recently issued to Excise officers respecting medicines liable to stamp duty were then read and discussed, and it being the opinion of the members that the Act would thereby be unduly strained; to the great inconvenience and annoyance of chemists, the following resolution was passed and ordered to be sent to the Council of the Pharmaceutical Society:—

The chemists of Dover beg to call the attention of the Council of the Pharmaceutical Society to the harsh and arbitrary scope of the instructions recently issued by the authorities at Somerset House to Excise officers respecting medicines liable to stamp duty.

Provincial Reports.

Items of news, and newspapers containing matters of interest to the trade, sent to the Editor, will much oblige.

BIRMINGHAM.

BUSINESS TRANSFER.—Mr. T. L. Griffin, of 139 Monument Road, Birmingham, has disposed of one of his branch shops, that at the Six Ways, Smethwick, to Mr. Betts, of Sutton, formerly of Croydon.

FAILURE OF A MEDICAL MAN.—A meeting of the creditors of Arthur Oakes, surgeon, of 9 Old Square, Birmingham, was held last week, at the office of the Official Receiver, Colmore Row. The statement of affairs showed liabilities, 2,591l. 16s. 11d.; assets, 2,239l. 1s. 6d.; giving a deficiency of 352l. 15s. 5d. The report of the Official Receiver stated that Mr. Oakes had practised in Birmingham as a surgeon for upwards of thirty years, and had commanded a very considerable practice. His difficulties solely arose through lending money to a solicitor. An offer of 11s. in the pound was offered and accepted.

BRIGHTON.

BRIGHTON ASSOCIATION OF PHARMACY.—A meeting of this Association was held in the Mayor's room of the Town Hall on Tuesday evening, May 17. The President, Mr. W. D. Savage, J.P., occupied the chair, and there was a small attendance of members. The minutes of the previous meeting were read and confirmed. The treasurer, Mr. Cornish, presented his report, which showed a balance in hand of 24l. 10s. 10d. The President explained the provisions of the Pharmacy Act Amendment Bill, and after a short discussion it was resolved, on the motion of Mr. Savage, seconded by Mr. Caton:—

That the Amendment Bill of the Pharmaceutical Society be approved.

At the same time this meeting trusts that some means may be devised whereby the suggestions recently submitted to the Council, by the chemists of Brighton, may be carried out, and unqualified men be prevented from infringing the legitimate trade of qualified chemists and druggists.

This was followed by a discussion as to the advisability of offering prizes annually to chemists' apprentices in Brighton for proficiency in chemistry, &c.; and it was

DURSLEY.

At the Petty Sessions on May 9, Mr. William Banbury, chemist, of Dursley, summoned Mr. George Adams, relieving officer, for assaulting him on April 23. On being asked to plead, the defendant said before he did so he wished to ask the bench if, on the occasion of a quarrel in the street, he merely stroked complainant down the beard, whether it was an assault, the said stroking not being accompanied by any act of striking or threat. The chairman asked if the party stroked did not consent to it. Defendant: He did not ask me to do it. (Laughter.) The chairman: Well, it is an assault. Mr. Carter, for the plaintiff, said the assault complained of was of a far more serious character than that. Mr. Banbury said about 12.30 on the day in question he was standing on the pavement outside his shop, having been serving a customer on horseback, when defendant came down the street and said to him, "Well, Mr. — pillcochia, what do you think of yourself now?" Witness turned round in surprise, and walked towards his shop door without saying anything. Defendant then said, "What do you mean by telling Martin Pearce in your private room that I owed you 3l.?" Witness denied doing so, when defendant said, "You are a — liar." He then put his fist in witness's face and said, "You —, you did." Witness tried to enter the shop, when defendant caught hold of him by the collar and pushed him against the wall of the house, leaving a mark on his shoulder. After further bad language defendant pushed him off the pavement into the road. A pen fell out of witness's ear, and when he stooped to pick it up defendant rubbed his hand several times across his face. This evidence was corroborated and ultimately the bench fined defendant 1l. and 1l. 1s. 6d. costs (2ls. 1s. 6d. in all).

LIVERPOOL AND DISTRICT.

THE EXHIBITION.—On Monday the Royal Jubilee Exhibition was opened by the Princess Louise. The exhibition contains a few exhibits of pharmaceutical interest.

A MARINE LABORATORY.—The Liverpool Marine Biology Committee have secured the use of the old telegraph station on the Puffin Island for the purposes of research, and are to take steps for fitting it up in a proper manner.

PEPPER ADULTERATION.—At the Newton-le-Willows Petty Sessions on Saturday, James Unsworth, a grocer, was fined 20s. and costs for selling $\frac{1}{4}$ lb. of pepper adulterated to the extent of 3 per cent. with ground olive stones.

PLYMOUTH.

A FIG FOR THE DEFENCE.—At Plymouth on Wednesday the chief stoker of H.M.S. *Iron Duke* was fined 1l. for smuggling six small bottles and one large bottle of eau de Cologne and two bottles of Florida water. He said to the excise officers that the box containing these was full of "figs for the children."

SHEFFIELD.

SHEFFIELD PHARMACEUTICAL AND CHEMICAL SOCIETY.—The annual general meeting of this society was held in the rooms, Norfolk Road, on Wednesday, May 11. Messrs. J. H. Harrison and T. C. Whaley were elected members, and Messrs. Bolsover, Smith, and Moffat associates. The lecturers in the School of Pharmacy reported on the recent class examinations. All said that the result of the examinations testified to the high quality of the work done. The following gentlemen having gained the highest marks in the respective subjects, were awarded the prizes offered by the President and Council:—President's prize (best in all subjects), J. T. Ellinor; Theoretical Chemistry, J. T. Ellinor; Practical Chemistry, 1st, Mr. Golland, 2nd (special prize given by lecturer), J. T. Ellinor; Botany, 1st, T. L. Hollely, 2nd, A. S. Smith (special prize given by lecturer); *Materia Medica*, J. Smith. The report of the past year's proceedings was then read, and evinced much activity on the part of the members in extending the sphere of usefulness of the society, the educational facilities provided for the students illustrating this in a marked degree. The students themselves had not been slow to take advantage of the instruction in the various subjects. The financial statement showed the society

to be in a highly prosperous condition. The election of officers and council for the year resulted as follows:—President, Mr. J. M. Furness; vice-presidents, Messrs. J. H. Bradwall and W. H. Maxey; treasurer, Mr. G. T. W. Newsholme; honorary secretaries, Messrs. G. A. Grierson and Jno. Humphrey; other members of council, Messrs. Appleton, Ellinor, Lowe, Morrison, Preston, and Rhoden; auditors, Messrs. Cubley and Morrison. The usual votes of thanks were awarded.

SEDITION IN THE CAMP.—There has been some talk in connection with the election of secretaries. The late hard-working secretary found the work telling too heavily upon him, and desired to be relieved of his office, but no one of the seniors cared to step into his shoes. At last two assistants volunteered to undertake the work jointly, if that would prevent a threatened stoppage of business and consequent injury to local pharmacy. But then they were only assistants, and, besides, one of them had rendered himself obnoxious to a few by venturing, in a recent discussion on some questions of pharmaceutical polity, to express an opinion. It has transpired that at a recent Council meeting one of the few objected in no measured terms to the nomination of the assistants in question. Various charges of an unfounded character were brought against them at a private meeting, and just before the general meeting commenced Mr. Ward, F.C.S., local secretary to the Pharmaceutical Society, entered the room, and was heard to remark to the president-elect, in a very loud tone, that if Mr. Humphrey were elected secretary he would decline to sit on the Council. He then left the room. It so happened that Mr. Humphrey was elected unanimously, and Mr. Ward failed to obtain sufficient votes to entitle him to a seat on the Council!

LAUDANUM-POISONING.—On Monday Mr. D. Wightman, coroner, held an inquest on the body of Ann Birks, wife of a crate-maker. From the evidence it appeared that the deceased had been in a bad state of health for some considerable time past, had been in the habit of taking laudanum for the last eighteen years, and that she suffered considerably from bronchitis. She had sent for camphor and laudanum on the previous Tuesday to make into a cough mixture. Some of this she is supposed to have taken. Without calling medical evidence the jury found that death was due to bronchitis aggravated by an overdose of laudanum.

An inquest was also held on the body of Jane Jessop, aged eighteen years, a domestic servant. Dr. Martin said that he was called in to see the deceased, and found her under the effects of a narcotic. She gradually got worse, and died in an hour. He ascertained she had procured two ounces from Mr. Bentley, chemist, Clarke Street, and as only part was left the girl had probably taken the rest, which was sufficient to cause death. Corroborative evidence was given, and the jury returned a verdict of "Suicide during a state of temporary insanity."

SCOTLAND.

EDINBURGH.

"NOTES ON SALUBI-LITELES" was, according to the *Scottish News*, the title of a paper read by Mr. D. B. Dott at the last meeting of the North British Branch. This is a new department of science for pharmacy.

THE PARTNERSHIP between Mr. William Gilmour and the trustees of the late Mr. Lindsay having expired on May 15, Mr. Gilmour has become the sole proprietor of the business so long carried on at 11 Elm Row by Lindsay & Gilmour, and before them by Lindsay & Shaw.

MR. JOSEPH A. CENTER is severing his connection with the firm of Center & Co., 53 Nicolson Street, which lately figured in the Law Courts here, and will shortly commence business on his own account at Angle Park Terrace, Slateford Road.

PRESENTATION TO MR. W. DUNCAN.—Mr. William Duncan, teacher of pharmacy, Royal Provident Dispensary, was entertained to a cake and wine banquet in the Albert Hotel on May 13 by a number of his former pupils, and was presented with a handsome microscope with double nose-piece as a mark of their respect for him and appreciation of his abilities. Mr. W. Gilmour, F.R.S.E., occupied the chair, and in making the presentation said he had watched Mr. Duncan's career

with pleasure. He anticipated for their guest a distinguished future. It afforded him much satisfaction to be present on the occasion. Mr. Duncan suitably replied, and a very pleasant evening was spent.

GLASGOW.

SUPPOSED POISONING.—On Saturday last a respectably dressed man was found lying dead on a farm in the parish of Old Monkland. He had evidently taken an overdose of laudanum, a gill bottle of which was found in his pocket. The body was subsequently identified as that of Robert Provan, 48, a drysalter. He leaves a widow and two children, who reside at 462 Paisley Road, Glasgow.

A CURE FOR WHOOPING-COUGH.—The following extraordinary scene was enacted one day last week in the neighbourhood of Glasgow. A traveling candyman and rag-gatherer, with a cart drawn by a donkey, drew up in front of a row of houses known as "Pirrat's Row," a little off the highway at Maryhill. Two children living in this quarter are suffering from whooping-cough. After a short conversation with the proprietor of the donkey, the mothers of the two children took up a position one on each side of the animal. One woman then took one of the children and passed it below the donkey's belly to the other woman, the child's face being towards the ground. The woman on the other side caught hold of the child, and giving it a gentle somersault, handed it back to the other woman over the donkey, the child's face being turned to the sky. The process having been repeated three times, the child was taken away to the house and the other child similarly treated. While this was going on two other children were brought to undergo the magical cure. In order that the operation may have its due effect, the donkey must not be forgotten; and at the close of the ceremony each mother must carry her child to the head of the animal, and allow it to eat something, such as bread or biscuits, out of the child's lap. This proceeding having been performed in turn by the four mothers, the prescribed course was concluded. When it began there were not many people present, but before it was finished there was quite a crowd of spectators. From inquiries made the following day, it seems the mothers are thoroughly satisfied that their children are the better of the enchantment.

STIRLING.

SUICIDE WITH CHLORAL.—On Friday, May 13, a clerk named Graham Speirs Kerr, forty-four, drank a wine glassful of a chloral mixture, having previously informed his wife that he meant to put an end to his existence, which he did.

NEW COMPANIES.

JAMES SAMUELSON & SONS (LIMITED).—This is the conversion into a company of the business of James Samuelson & Sons, of the Wallasey Oil Mill, West Float, Poulton, Chester. It was registered on May 10, with a capital of 50,000*l.*, in 100*l.* shares.

THE MANCHESTER OXYGEN (BRIN'S PATENT) COMPANY (LIMITED).—Registered by Grundy, Kershaw & Co., 19 Southampton Buildings, W.C., with a capital of 20,000*l.*, divided into 200 shares of 100*l.* each. Object, to accept and carry into effect the licence which has been made between Brin's Oxygen Company (Limited), of the one part, and the company of the other part.

KAY BROTHERS (LIMITED).—This company was constituted by articles of association on March 31, and was registered on April 28 as a limited company, with a capital of 100,000*l.* divided into 9,990 shares of 10*l.* each, and 100 founders' shares of 1*l.* each. It proposes to trade as chemists, druggists, and drysalterers, and as makers and dealers in electrical, chemical, photographic, surgical, and scientific apparatus and materials. The members are:—Samuel Kay, Stockport, chemist; Thomas Kay, Stockport, chemist; Mrs. S. Kay, Stockport; T. P. Hardcastle, Stockport, chemist; Mrs. Hardcastle, Stockport; J. W. Leather, Stockport, bookkeeper; G. A. Downs, Stockport, bookkeeper. The first two subscribers are appointed permanent directors, and will each be entitled to 400*l.* per annum salary.

Legal Reports.

High Court of Justice, Chancery Division, May 13.

(Before Mr. Justice Kay.)

T. & E. ATKINSON v. JAMES ATKINSON & Co.

THIS was a motion on behalf of Messrs. J. & E. Atkinson, perfumers, Bond Street, for an injunction restraining the defendant, trading as James Atkinson & Co., Finsbury Square, from representing that any person in his firm is, or ever was, a member of the firm of J. & E. Atkinson, and from instructing his travellers to represent that James Atkinson (the defendant) is a brother, or his firm an offshoot, of the firm of J. & E. Atkinson. The action arose out of the sale of "White Rose" perfume, in bottles of the same shape and stoppers, and bearing labels identical with the plaintiffs' labels, excepting the word and letter "and E."

Mr. Marten, Q.C., for the plaintiff, said the action was brought for misrepresentation, the defendants' travellers having gone about the country alleging that there had been a split in the plaintiffs' firm, and that the defendant, who was a brother, had been set up in business by one of the partners. The learned counsel read affidavits bearing out this statement, filed by Mr. Pink, of Landport and Southsea; Mr. Lane, of Cirencester; Mr. James Atkinson, of the firm of J. & E. Atkinson; and Mr. Walter Nash, buyer to Mr. Whiteley, Westbourne Grove.

Mr. Wilkinson, for the defendant, read an affidavit filed by the defendant, who denied ever making the statement imputed to him, or that he was the originator of the "White Rose" perfume, or that his firm was an offshoot of the plaintiffs. He alleged that he had always instructed his travellers to make it perfectly plain to customers that his firm was entirely distinct from the plaintiffs', and he did this because he was anxious not to interfere in any respect with the plaintiffs' firm. His travellers had informed him that they had great difficulty in selling his perfumes in consequence of the similarity of the names of the two firms; but, notwithstanding, he had given strict injunction that his wishes in the matter were to be obeyed, and on no account were representations to be made which would lead to the supposition that his firm was connected with the plaintiffs. The bottle containing the "White Rose" perfume was an ordinary bottle used by all perfumers, and was not confined to the use of the "White Rose."

Affidavits were filed on behalf of the defendants by Mr. William Henry James Atkinson (nephew of the defendant, and in his employ); Mr. Henry Cowan, commercial traveller in the employ of the defendant; Mr. James M. Morgans, Mr. E. Marks, and Mr. G. T. Thompson, who at various times had travelled for the defendant.

His Lordship, in the course of his judgment, said he had no doubt on the evidence before him that this was a case of fraudulent trading by the defendant, who was trying, so far as he could, by false statements made by his agents to avail himself of the reputation of the well-known firm of J. & E. Atkinson & Co., of Bond Street. The bottle of the defendant was absolutely identical in shape, conformation, size, and stopper, and round the edge was cast in glass "J. Atkinson, London." There was no difference except the omission of "and E." on the label. What was he to believe when anybody manufacturing and selling perfume, and happening to have the same name as the senior partner in the well-known firm in Bond Street, copied the bottle with the greatest possible accuracy, and went so far as to have cast in the glass "J. Atkinson, London," instead of "J. & E. Atkinson, London"? He could only say that anyone who did that would find it difficult to persuade him that he gave such instructions to his travellers as defendant said he gave. His Lordship granted an injunction in the terms of the notice of motion until the trial of the action, or further order.

THE SHEFFIELD TINCTURE OF OPIUM CASE.

In the Queen's Bench Division of the High Court of Justice, London, on Tuesday, the case of *White v. Bywater* came before the Lord Chief Justice and Mr. Justice A. L. Smith, sitting as a Divisional Court. This was a case stated by the learned stipendiary of the borough of Sheffield for the opinion of this Court.

Mr. Wormald appeared for the appellant, and stated that this was an appeal from the decision of the magistrate, who refused to convict the respondent of a charge under the Sale of Food and Drugs Act, 1875. The facts of the case were as follows:—The appellant, Mr. Sinclair White, M.D., was the medical officer of health for the borough of Sheffield, and last November he went to the shop of Mr. Bywater, the respondent, and asked for 3 oz. of tincture of opium. This was supplied to the appellant, who then, according to the requirements of the Act, informed the respondent that he had purchased the tincture for analytical purposes, and divided the 3 oz. into three portions, giving one to the respondent, keeping one himself, and the other part was sent to the analyst. The analyst (Mr. A. H. Allen) reported that the alcoholic strength of the tincture was only 56·8, whereas the British Pharmacopœia tincture of opium should contain 100 parts of proof spirit. The morphia percentage of the sample was ·23, whereas the British Pharmacopœia required a percentage of ·75. The result of the analysis showed that the sample sold by the respondent contained rather more than half the amount of proof spirit, and only one-third of the quantity of opium that the British Pharmacopœia ordered. Of course there was something else in the tincture, which the Court must assume to have been water, but the British Pharmacopœia ordered simply proof spirit and opium. The certificate of the analyst was not disputed at the trial. Evidence was given on behalf of the prosecution by the plaintiff himself, by Mr. Alfred Henry Allen, Fellow of the Chemical Society and public analyst for the borough, and by Mr. George Thomas W. Newsholme, pharmaceutical chemist, and President of the Sheffield Pharmaceutical and Chemical Society. These witnesses deposed that tincture of opium was a well-understood term in the trade, and that the material sold by the respondent was not of the nature, substance, and quality of tincture of opium as understood by persons usually dealing with that article. These gentlemen also stated that the British Pharmacopœia was the standard generally recognised in the preparation of drugs by the medical profession and pharmacists. The statute under which this action was brought (the 38 & 39 Victoria, cap. 63, sec. 6) enacted that no person should sell to the prejudice of the purchaser any article of food or any drug which was not of the nature, substance, and quality of the article demanded by the purchaser, under a penalty not exceeding 20*l*. The learned counsel stated that the Act went on to give certain exceptions, but it was not contended that this case came under any of these exceptions. He contended therefore that on this evidence, which was uncontradicted, there was direct evidence that the substance supplied to the appellant was not of the nature, substance, and quality of the tincture of opium as understood by persons usually dealing in that article, and that tincture of opium was a well-understood article in the trade. The learned stipendiary had considered that, if the purchaser had in some way specially asked for the tincture of opium according to the British Pharmacopœia, he should have been obliged to convict the respondent, but in this case the appellant did not ask that. The learned counsel proceeded to argue that on the evidence the magistrate ought to have convicted, and he based his argument on the fact that the tincture of opium supplied here was only one-third of the strength of the tincture ordinarily known and approved by the British Pharmacopœia. The defendant did not deny that the British Pharmacopœia was recognised as the book of authority for the preparation of tincture of opium and other drugs.

The Lord Chief Justice: Do you mean to go so far as to say that to sell anything which is less in strength or differently prepared from the British Pharmacopœia would be punishable?

Mr. Wormald said he was not compelled to contend that. What he had to show was that this was not of the nature, quality, and substance of the article demanded. The main question was, "Did the appellant get an article of the quality and substance asked for?" The appellant asked for 3 oz. of tincture of opium, and what he got was equivalent only to 1 oz. of the ordinary tincture. Under these circumstances he submitted to the Court that the magistrate ought to have convicted, and that his decision must be set aside.

No one appearing on behalf of the respondents.

The Lord Chief Justice gave judgment. He said he should have been glad to have heard the case argued on behalf of

the respondent, but he must decide it upon the evidence before him. The evidence that struck him as important was the evidence of persons—a number of apparently intelligent persons—doctors of medicine, medical officers, and public analysts—six or seven of them, who deposed that tincture of opium was a well-understood term in the trade, and that the article sold by the respondent was not of the substance and quality understood by persons dealing with the article; and they also deposed that the British Pharmacopœia was the only one recognised by the medical profession and by pharmacists generally. These witnesses, who by their description appeared to be highly competent witnesses, swore that the drug sold in this case was not of the nature, substance, and quality of the article demanded by the purchaser. It must be taken that the purchaser was a person using the article, and that the defendant was a person dealing with the article, or a chemist and druggist, and it was proved that the British Pharmacopœia was the only authority recognised by persons in the profession, while the analysis showed that the article sold was not of the nature and quality of the article in the British Pharmacopœia. Under these circumstances what was the course to take? He had not heard any argument for the other side, and he was reluctantly—he said reluctantly on account of the magistrate—bound to say that he was wrong, and the case must be referred back to him.

Mr. Justice A. L. Smith, in concurring in this judgment, said that in this case the appellant went to the respondent's shop and asked for 3 oz. of tincture of opium. What was the meaning of that? He thought it meant 3 oz. of tincture of opium of commerce, or the article usually sold as tincture of opium. That being so, and the evidence being all one way—for the gentlemen whose evidence was stated by the magistrate deposed that the tincture was not of the nature of the article understood by persons dealing in the article—it appeared to him that the appellant did not get the article for which he asked. Therefore the appeal must be allowed.

Appeal allowed, and the case referred back to the magistrate.

THE MEDICINE STAMP ACT.

AT Bow Street on Friday, May 13, Mr. Richard S. Brooks (trading as A. T. Coffin & Co.), of 134 High Holborn, London, appeared to answer a summons for selling an article called "Delectable Lozenges," chargeable with the medicine-stamp duty, without having a stamp thereto affixed.

Mr. Highmore, who appeared for the Inland Revenue Department, called witnesses to prove that defendant exhibited a placard in his shop as follows:—"Delectable jujubes, composed of marshmallow, liquorice, and tolu. An excellent demulcent and expectorant, for cough, cold, &c., &c. 3*d*. an oz ; 3*s*. 4*d*. per lb.," and that the departmental informer, on demand, was supplied with the jujubes, and on these facts contended that defendant had incurred the penalties provided by the Act of Parliament.

Defendant's contention was that, having sold the jujubes in plain white paper without any label whatever, he had not contravened the law.

Mr. Bridge (the presiding magistrate), on being informed that the defendant had not advertised in any public print, held that the show-card was not such a public advertisement as to bring the article within the meaning of the Act, and dismissed the summons.

Mr. Highmore asked the magistrate if he would grant a case.

The magistrate expressed his willingness to do so, but the request was not pressed at the time.

At the same Court, Mr. J. Ockenden, 155 High Street, Notting Hill, was fined 10*s*. and costs for selling a preparation labelled:—"Phosphorus and glycerine. An agreeable and excellent preparation for cold on the chest, coughs, consumption, loss of voice, and all lung affections, and is unequalled as a nerve stimulant and brain tonic. A teaspoonful in a little water or milk every two or three hours, and oftener if necessary. Price 1*s*., 2*s*., and 3*s*. 6*d*. per bottle."

Mr. Ockenden stated in defence that some months previously he went to Somerset House, taking label as above, but that the preparation was described as Ockenden's, and at the foot it was said to be "prepared only" by him. He said he was then told that provided he struck out "Ockenden's," and "prepared only by," &c., the preparation might be sold

without a stamp, and that ever since he had used the label so altered.

Mr. Ockenden admitted his inability to produce proofs of his statement, not possessing any letter from the Inland Revenue Department, as his communications had all been verbal.

A charge against Mr. John Strickett, 161 St. George's Road, Peckham, was next dealt with. He, it appears, up to July, 1885, had sold lozenges in boxes labelled "Strickett's cough lozenges." The Inland Revenue Department at that time accepted the mitigated penalty of 2*l.* Mr. Strickett undertook to cease to use the label in future. Defendant had, however, exhibited in his window a large placard, worded thus:—"Cough lozenges, 1*d.* and 2*d.* per box."

"Her Majesty's Inland Revenue Department having fined me 2*l.* for using my name on the above's labels, I must discontinue. The lozenges will be the same." And he had been in the habit of giving away this poetical effusion:—

"A FACT."

Cough Lozenges!!!

A Penny a Box, Twopenny a Box,

A Penny a Box, who'll buy?

My Lozenges they are the best,

And I will tell you why!

A 2*l.* fine, because they're mine,

I have had to pay,

And this is Law in England at the present day.

Might against Right, has been the fight

In England's ancient story,

And 'tis the same, whether the name

Be Liberal or Tory,

Your Name upon a Penny Box of Lozenges brings you

Within the legal clutches of the Inland Revenue.

Sold by John Strickett, Chemist,
161 St. George's Road, Peckham, S.E.

Defendant produced the placard in Court, evidently considering it a good witness that he had done his best to contract himself out of the Act of Parliament. He said also that when asked for "Strickett's Cough Lozenges," he informed customers that "he had no article bearing that title any longer." The learned magistrate, while smilingly acknowledging defendant's literary ingenuity, imposed upon him a fine of 2*l.* and costs.

Mr. G. S. Boutall, A.P.S., Charing Cross Road, W.C., was summoned on the same day for selling two preparations called respectively "hop tonic" and "aromatic iron and quinine," without complying with the Medicine Stamp Act. It was admitted by defendant's manager (Mr. J. T. Hill) that he had been in the habit of innocently sticking the revenue stamp upon one side of the bottles of hop tonic, as a sort of symmetrical balance to the label on the opposite side. In reply to the magistrate he decidedly rejected the suggestion of using the same stamped bottles twice over, remarking that they never had the bottles returned, and had no intention to defraud. Mr. Bridge fined defendant 5*s.* and costs. In respect to the "aromatic iron and quinine," Mr. Hill admitted having sold one bottle by inadvertence without the necessary stamp, and stated it must have been overlooked when putting up a large quantity of the preparation. In this case Mr. Bridge fined defendant 10*s.*

PHARMACY IN INDIA.

MR. BOWDEN, of Madras, is putting up smaller sizes of his "Henry's Thilum," more suited to the native purse.

MESSRS. H. A. CHAUDABHAI & Co. have started business as wholesale druggists in Musjid Lane, Bombay.

MESSRS. LAZARUS & Co., of Benares, are pushing the sale of a number of Indian remedies throughout the Empire.

MR. WILLIAM CARTER has been travelling throughout Northern India on behalf of Messrs. Treacher & Co., which company does not usually send out representatives.

I WAS told, though I cannot vouch for the truth of the story, that H.H. the Nizam of Hyderabad, paid Messrs. Badham, Pile & Co. (Limited), chemists, &c., 37,000*r.* on behalf of his government for a pictorial illustration of H.M., the Empress, to adorn the Chudderghaut public gardens at the Jubilee anniversary. Messrs. Badham, Pile & Co. subscribed 5,000*r.* to the Jubilee demonstration fund at Secunderabad.

MR. CHARLES W. WHITE, representative of Messrs. Burgoynes and Messrs. Burroughs & Co., has just returned from a trip to Goa and Portuguese territory, which he found very interesting. He has placed supplies of the goods which he offers in many shops far in the interior of the country. The railway from Goa in connection with the Southern Mahratta Railway system is rapidly approaching completion, and will open out a new country hitherto of little value to trade. The port of Goa is likely to grow quickly in importance in consequence. The attention of shippers should be drawn to this.

MR. B. PHILLIPS, managing director of Messrs. Phillips & Co. (Limited), with his family, is leaving for England, to enjoy a well-earned holiday. Mr. Percy Beck also goes on leave. The same firm have re-engaged the services of Mr. Cook, lately manager of Messrs. Barton & Co.'s business, and have brought out a new man from home. Mr. Baldwin has returned from Quetta, his health having suffered considerably. Mr. Davis, of Messrs. Treacher & Co.'s Byculla establishment, is going home for a few months. Mr. Thompson is leaving that firm, and a Mr. Priestly is coming out from England for the Poona branch.

AT this season of the year, when the intense heat of the plains parches up everything, it is pleasing to note the flowers of some indigenous and other medicinal plants. Such are the Neem or Margosa trees, with their pretty racemes of white lilac-like flowers so delicately perfumed; the Pomegranates, with their gaudy scarlet; and the Scammony plants, which have been freely adopted in the public gardens as ornamental shrubs, with their large convolvulus corollas. These seem to flourish so well as to suggest the idea that it would pay to cultivate the plant for trade purposes. It is easily propagated by cuttings. Other noticeable medicinal plants are the Castor Oil, the Papaw (Carica Papaya), and the Croton—all cultivated as ornamental shrubs throughout India, and especially grateful to the tired eye on account of their wealth of green leaves at a time when the herbage is almost invisible.

THE old-established house of Symes & Co., Simla and Umballa, writing concerning the value of assistants and the establishment of branches, say:—"Had it been our fortune to get one or two really good men during the past few years we should almost certainly have opened as many branch establishments; this part of India is not yet opened out; the difficulty is to get men that are, to use a vulgarism, 'worth their salt,' not where to start a business, or rather a branch of an old-established business, but where to find a man on whom reliance can be placed."

I may add to the above remarks that favourable openings occur for the establishment of businesses at Belgaum, Madras presidency, in the district served by the Southern Mahratta Railway, garrisoned by an English regiment artillery, and Madras sepoys; at Ahmednuggur, Bombay presidency, on the Great Indian Peninsula Railway, where there is a splendid old fort occupied by about the same number of troops as is Belgaum; at Fyzabad, Oude, also on a railway, where I learn a trading company has had the establishment of a chemist's branch under consideration for some time, but cannot make up its mind to undertake the expense; at Bangalore, served by the Madras Railway, called the Brighton of India, the head-quarters of the Madras army, and the residence of Lord Connemara, the governor, during the season. This place already possesses chemists, but there is room for healthy competition. It has a delightful climate for the greater portion of the year, and is one of the few stations where English fruits abound.

IN making tinctura arnicæ florum great care should be taken in filtering, for if the hairs pass through the filtering-medium they are apt to get into wounds when the tincture is applied to the skin, and thus give rise to irritation.

Pharmaceutical Society of Great Britain.

DINNER IN AID OF THE BENEVOLENT FUND.

ON Tuesday the decennial dinner in aid of the Benevolent Fund for distressed chemists and druggists and their families was held in the Freemason's Tavern. This fund is too well known to need much description. Founded as one of the objects of the Pharmaceutical Society at the time that body first came into existence, it remained for twenty-eight years a fund for the benefit of the members of that Society solely. Since 1868 its benefits have been open to the whole craft, and it has grown in usefulness, and is so liberally supported by the trade that, we may say, it is independent of the support which a charity dinner renders it. About 200 of the 238 gentlemen who attended the dinner on Tuesday evening would have been present whether it was a benevolent matter or not. The company was one composed chiefly of the supporters of the Pharmaceutical Society, and as the dinner takes the place of the annual one, those who have been accustomed to attend these gatherings were not kept back by the slender appeal which was made to them to unloose their purse-strings. Whether the result was all that was desired is another matter, but the motive was excellent, and the donations which were announced in the course of the evening will ease the circumstances of some afflicted members of our calling, who find the road rough and the world heedless of their accomplishments. The company began to arrive at 6.30 p.m., and were received by the President (Mr. Michael Carteighe) and the leading officers of the Society. For a brief half-hour there was renewal of acquaintances and pleasant chat; then, at a few minutes past seven, the company trooped in to dinner. Mr. Carteighe was cheered as he took the chair, the vice-chairman (the Vice-President), Dr. Paul, Messrs. Allen, E. W. Butt, Hills, Robbins, Taylor, and Umney having meanwhile assumed their posts. There were none of the distinguished scientists, medical men, or politicians present on this occasion; pharmacists had it all to themselves, and they showed the stuff they were made of by the support which was given to the President on each side of his chair. Immediately to the right were seated Mr. Frederick Barron, Mr. Wm. Hodgkinson, Mr. E. Bremridge, and Dr. Langdon Down, with Professors Attfield, Bentley, Dunstan, and various members of the Council further down. Emeritus Professor Redwood sat immediately to the left of the President, and beside him were Sir P. Stokes (an old pharmacist) and his son, Mr. P. S. Stokes, with Mr. Lescher and other leading pharmacists near them.

After an excellent dinner a glee party sang grace, and the President proposed the usual loyal toasts in speeches which were characterised by their briefness and loyal diction; moreover he succeeded in *not* saying that pharmacists were as loyal and true blue subjects as her Majesty can boast of, and this contributed apparently to the enthusiasm with which the toasts were responded to.

Then Mr. Carteighe rose to propose the toast of the evening, "Prosperity to the Benevolent Fund of the Pharmaceutical Society." In doing so, he explained the origin of the decennial dinners, and that it was the custom not to have guests on such occasions because they did not care to ask subscriptions from outsiders; the fund was a fund for chemists and druggists, and by them it was kept up. (Hear, hear.) He then went on to explain how the fund originated in 1842 as the outcome of the benevolent disposition of the founders of the Pharmaceutical Society, and their desire to assist those of their number who might come to want. The nucleus then formed grew and prospered until 1852, when the Pharmacy Act confirmed the objects of the charter, without materially changing the administration of the fund; and so it continued until the Act of 1868, when, as we have explained, its benefits were extended to the whole craft. The President lingered on this point awhile, pointing out its magnanimous nature and the far-seeing wisdom of the then leaders, such as Mr. G. W. Sandford, in conceiving such a noble thing as to allow any member of the craft, whether he had subscribed to the fund or not, to apply for help when he required it. In these times of killing competition and bad trade it was pleasant to hear the President remark that,

although the number of cases for relief is large, yet it shows a smaller proportion to the number of persons in the drug trade than of any other body which has a similar fund to administer. This remark was received with a solid round of applause, and then the speaker went on to say that the Pharmaceutical Council as trustees had within the last few years looked upon annual subscriptions of small sums as of great importance. He wanted more sums between half-a-crown and a guinea from every member of the drug trade. It was such sums which would enable the administrators of the fund to continue a record like what he now announced of the last ten years. During this period there had been distributed in casual grants 6,000*l.*, and in annuities no less than 11,300*l.*; yet the invested capital of the fund only yields something under 800*l.* a year. There were some who for that reason objected to having more annuities than there was invested money to pay for; but he defended the new policy, chiefly on the ground that he had great confidence in the liberality of the trade, and their willingness to support the charity at a pinch if it should arise. He made an appeal through the representatives of the press to chemists and druggists who had not given anything to this important institution; reminded them that they were eligible for assistance from it, and that this would be given entirely on the merits of their case, and that whether they were connected with the Pharmaceutical Society or not would not be considered at all. He would be glad to receive big sums, but in these days of bad trade what he wanted was small sums from all over the country, so that the Council might be enabled not only to elect more annuitants, but to increase the amount of each annuity. With these remarks he submitted the toast for their acceptance and the fund to their benevolence. The former was drunk with enthusiasm, and while cards in aid of the latter were being closely scrutinised and languidly inscribed upon by members of the company, the glee party sang several songs.

The VICE-PRESIDENT (Mr. T. P. Gostling) also rose to propose a toast, viz., "The British Pharmaceutical Conference, the faithful ally of the Pharmaceutical Society." While the Society, he said, was carrying on the work of education and other work for the benefit of the drug trade, the Conference had been carrying on work of research, and doing great things in furthering pharmaceutical knowledge. He submitted that the outcome of the work of the Conference would be such a state of things, such improvement in the pharmaceutical calling, that there would be fewer applications for relief from the Benevolent Fund. In submitting the toast he coupled with it the name of Mr. Atkins, the President of the Conference, and trusted that it would have as hearty receptions in the future as it had had in days gone by. (Applause.)

After the toast was responded to Mr. Atkins immediately arose and thanked Mr. Gostling and the company for the handsome and kind way in which the toast was proposed and received. The Conference, he remarked, was established in 1863, with two objects, (1) Research and (2) Freemasonry, and he declared both those objects had been achieved. (Hear, hear.) After briefly reviewing the history of the Conference, he said that although pharmaceutical research may have made greater progress in France and Germany during the twenty-four years of its existence, yet a large amount of real and substantial work had been done in Great Britain, and the Yearbooks were a proof of this. If anyone had a doubt about the research, he could have none of the freemasonry. (Hear, hear.) That he was sure was an accomplished fact, viz. that the Conference drew pharmacists closer together than they had been before. And of all men, he said, pharmacists need association, for the nature of their calling is such as to require frequent intercourse amongst the members of the craft. He was sure, from the harmonious way the Conference had been received in years past, from the warm invitation which Canada had extended to it, and the undivided and valuable support given by our colonial cousins, that there was no fear of the future, and, in conclusion, he appealed to all to attend at Manchester, where the fame of a Dalton of the past, of a Roscoe of to-day, and the hearty invitation of a Bengier, a Woolley, and other ardent pharmacists would assure them a successful meeting. (Applause.)

After some more music the Secretary read the list of donations which had been intimated or subscribed at the

meeting. As the names of donors of double figures were read the company liberally bestowed its applause. The list was somewhat shorter than usual, and it is noticeable that the sums subscribed were in most cases much smaller than on former occasions. The list will be found on page 628.

Dr. LANGDON DOWN then proposed the health of the President. He said that in a company of pharmacists he required to say little in regard to their President, who was known to them for his great ability and energy. They would remember that as a student he was first in four subjects, and that his second on that occasion was a pharmacist present in the room, whose abilities and success in life were such as entitled him to say that he deserved to have been first. Whatever matter the President took in hand, whether it was dinner, conversation, Redwood Testimonial Fund, or a climb up the Alps, he showed consummate business tact, good sense, and infinite energy. (Hear, hear.) He did everything in good spirit, in every department was *facile princeps*, and there was no more genial fellow than he. (Applause.)

The toast was drunk with all honours and a cheer for Mrs. Carteghe. At this stage an enthusiast suggested a 6d. collection for the Benevolent Fund, and straightway began to carry round the hat, to the amusement of some and the consternation of others.

The PRESIDENT, in replying, said that he had already explained why there were no distinguished strangers present that night, and some might consider his friend Dr. Langdon Down a stranger, but he would not allow himself to be regarded as such. As an old student of the Pharmaceutical Society he had kept up his connection with the institution, was a regular attendant at these meetings, and came amongst them with sympathy for their work. Referring to pharmaceutical matters, he said that there was developing in the ranks of pharmacy an *esprit de corps* which was a great aid to progress. After referring briefly to the work of the Society in the past, he remarked that it had been suggested that the President of the Society should be peripatetic, that he should go about the country preaching the doctrines and furthering the objects of the Society. He thought there was a good deal to be said about that, but societies like men must live, and the work in connection with the Society was so great that it was impossible that the President could properly watch the business in headquarters and travel the country at the same time. Pharmacy had now a press which reported the meetings of the Council so thoroughly that all the work of the body was regularly brought before the trade, and they saw that whatever the Council had to do they tried to do it in the most thorough manner. But one great difficulty that they had to contend against was, that there were members of the craft, though highly educated, who did not seem to appreciate the fact that knowledge is power, and is worth money. He maintained that remuneration in pharmacy is directly proportional to the education of the pharmacist, and just in proportion to his education would he be respected. He must bring to bear in every bit of work that he does the skill and knowledge that the Society has given him. With these facts before them, he felt that there should be no two opinions of the Pharmacy Bill now before Parliament. It was a Bill to further education. Candidates had the idea that its intention was to increase the stringency of the examinations; it was rather the opposite, for by demanding evidence of training from the candidate they would reduce the stringency of catch examination. As to the object of the Society in conducting the examinations, he could appeal to anything done in the past to show that the Society did not wish to place the fees in their coffers for their own use, but had placed the surplus at the disposal of the craft for the promotion of education, and he contended that there was no other body that did that. (Hear, hear.) He trusted that all would give the Council their support, and that all pharmacists would be actuated by a spirit for the furtherance of the common good. (Applause.)

The PRESIDENT then announced that the sum of 1,100l. had been subscribed, and this concluded the proceedings.

A glee party, consisting of Master Kenningham, Messrs. Schartan, Coates, and Winn, sang some excellent songs in the course of the evening. The song of the evening was unquestionably that sung by Mr. H. W. Schartan, which depicted the characteristics of the German. The song (which is one

of Mr. George Grossmith's) was effectively rendered and caused much laughter. The following is the last verse:—

They all adore, as I've said before,
Their country and their king;
In business they are very cute,
A most important thing;
So they come to us and succeed so well
That they settle on our shore;
Then the Fatherland, the happy Fatherland,
Never sees them any more!

ANNUAL MEETING.

THE members of the Pharmaceutical Society of Great Britain met together for their forty-sixth annual meeting on Wednesday last, the proceedings commencing at noon. Mr. Michael Carteghe, president, was in the chair. At the hour appointed not quite a hundred members were present, but the number reached nearly 150 within the next half-hour. The discussions were decidedly below the average of recent years in interest and ability, and partook throughout of the nature of a contest between the President single-handed and the various critics who rose one after another. As usual, Mr. Carteghe carried everything before him.

The notice convening the meeting was read by the Secretary, and, on the suggestion of the President, the report and financial statement (which were published in this Journal, April 30) were taken as read. The President then moved that this report should be received and adopted. He said he should perhaps best consult the wishes of the members by not commenting on the ordinary paragraphs of the report, but would limit his observations to those sections which might be described as the special or extra-ordinary acts of the Council. A large part of the work of the Council is of a routine character, and is not touched upon in the report. This sort of business, which involves a great deal of work at the monthly meetings of the Council, does not appear in the report. It was not necessary to comment on the financial statement. That spoke for itself. He had in previous years commented on it because of some changes in their investments; but there was nothing this year to call special attention to. The paragraphs relating to the museum, the library, and prosecutions for infringements of the Pharmacy Act were similarly of a routine character, and he would not dwell on them. But he might allude more fully to the paragraph concerning the Pharmacy Acts Amendment Bill. By general consent the further consideration of the Bill was postponed till after Whitsuntide, so that the position had not advanced beyond that which was stated in the report. This Bill was the outcome of the discussions which had taken place in the Council on the best way of training candidates for examination. There was a very large number of candidates plucked, and this made the Council unpopular. They could not expect to have the love of rejected candidates, but they wanted to give candidates a better opportunity of passing at their first attempt. At the best examinations were a necessary evil. Our forefathers did not believe in them. Their plan was to provide a long course of training, looking closely after their apprentices, living with them, and almost sleeping with them, taking care of their morals as well as of their business training, and then at the end of that training saying to them, "You are now good enough for our craft; you can enter it." He (the President) believed in that system of our forefathers and of the ancient Greeks and Romans, but there was no chance of such a system nowadays. Men would not now take apprentices to teach them the business in that way—he would not do so himself; and candidates came up and failed, and plaintively remarked that they did not know what they were expected to pass in. It was most painful to hear those remarks. He sympathised with the young men with all his heart; but they must not be too sentimental about these rejected candidates. They could not make their examinations perfect tests; they could not afford to follow the Chinese or Japanese systems of carrying on the examination for three or four weeks; so what they had decided, and what the Society had approved, was that they should, as clearly as possible, point out the way for the candidates, and this was what they proposed to do by the powers they asked for in the Bill. Their greatest difficulty in the House of Commons was to get the members to understand that they were doing

this for the benefit of outsiders; that this Society was actually spending money to help people to come into the trade. As far as he knew there was no other examining corporation which spent money in a similar manner. Their policy was to encourage education in its widest sense. It might be objected that the Bill did not go far enough. It was asked, Why not take the opportunity of abolishing the grades in the Society, and do other things? The answer was that it was simply a matter of tactics. All the members of the Council agreed that there were several things which ought to be done, but they had also agreed to deal with this subject of education first. The introduction of matter of controversy into the Bill would diminish their chance of passing it. It was said, and especially in Scotland, that by making the entrance to the trade more difficult they would reduce the possibility of getting the necessary number of apprentices. It seemed to be assumed that there were men so brilliant that they could come up and pass the examinations without any previous scientific training. But they do not do so. Such cases are exceedingly rare. Assistance is obtained, and the men go to irregular instead of to regular classes. They say, "We shall not read books during our apprenticeship, but when it is over we shall go to London and get our information in the shortest time." If the Glasgow objection was a sound one, that the medical degree, being easy to obtain there, would draw away pharmaceutical candidates, it only showed that the facilities for getting the necessary education for the pharmaceutical training were also great and the cost nominal. The objection was only good if it was desired to blind youth to the real nature of the pharmaceutical examinations. The Early Closing Bill was next referred to. Many of us, the President said, would hail with acclamation a Bill which would absolutely shut up our shops at a certain hour; but Sir John Lubbock did not propose that. It was admitted that the public had claims on the chemist, and he was to be ready to serve them after the hour for closing. In London the high rents did not allow them to have side doors or back rooms. He sympathised with the objects of the Bill, but he insisted that chemists, whether they were called traders or not, were on different ground to butchers or bakers. There was no getting away from the conditions of their occupation. The last subject he would refer to was that of the honorary members. It would be noticed that an unusually large number had been elected. This was explained by the fact that for several years they had not elected any, because they had been hoping to get an alteration in their bylaws which would enable them to elect also a class of corresponding members—younger men generally, who were engaged all over the world, in Europe, in India, and in the United States, in pharmaceutical research. He still hoped they would be able to elect such a class, who would do them honour and whose assistance would be extremely useful. The President formally moved the adoption of the report, which was seconded without any comment by the Vice-President, Mr. Gostling.

After a short pause, during which Mr. Long advanced to the table to deposit his voting-paper, the President, with a momentary hope of a half-holiday, said, "If no member has anything——" But the hope died out instantly, for Mr. Long returned to the front, but scarcely rose to his usual level. He cordially agreed with the President on the education question. Masters should take pains with their apprentices, and apprentices should study and attend lectures. He earnestly desired early closing, and for twenty years had shut up entirely, but he could not do so now. His remarks on this topic were a little mixed, for he urged at one moment that chemists should close like the banks do, and the next that in the suburbs it was necessary to keep open late because it was then that all the business was done. With regard to the purchase of new premises, Mr. Long was willing to credit the Council with sagacity, but he hoped they had taken good counsel. They were going to make improvements, and there was such a thing as the "unearned increment." The premises they used at present were used by others besides the trade, and the trade did not get sufficient benefit. They ought to be a branch of the Government and be regarded as such, and he did not think the Council did as much for the trade as they might do.

Mr. ROBINSON first asked a question about the postage. He had counted up the cost of the postage of the Journal to

the 5,608 members, associates, and apprentices, and found it considerably less than the charge shown. Perhaps this was made up by copies sent abroad.

The PRESIDENT said that was the explanation.

Mr. ROBINSON then went on to say that, while the Council had well fulfilled the first and second objects stated in the charter, they had in his opinion somewhat neglected the third object, which was the protection of those who carry on the business of chemists and druggists. He urged that it would be very satisfactory if the Council would make it known that they were ready to defend their members in cases where they were unjustly attacked. He thought there were such cases sometimes in prosecutions by the Board of Inland Revenue or under the Sale of Food and Drugs Act. He had read that the Society had taken such action in the "Betts" lawsuits, and also in a prosecution for the sale of Rubini's Camphor, and he believed they would do good by intimating their willingness to do as much in future. Of course he did not wish that the Society should defend in cases where a chemist had clearly been acting illegally. He had last year alluded to the management of the Journal, and it had been agreed that some changes ought to be made. He did not wish to raise the subject again, but hoped that something would be done.

Mr. HOWARD HALL next submitted his annual criticisms of the financial statement. This gentleman sets himself year by year the perfectly useless task of comparing every item of receipts and expenditure with similar items in the report immediately preceding, and totally disregarding the fact that a "financial statement" is not a "balance sheet," makes his points with the utmost solemnity. He had discovered this year that the Journal had spent more for paper and less for printing, a fact which he emphasised considerably. He overtaxed the patience of the President when he stated that the law costs, 408*l.*, had only returned 183*l.* in penalties, and he secured a general laugh when he brought out the imposing fact that the item for "purchase and binding of books" was 2*s.* more this year than last. There were cries of "Time!" as the analysis proceeded, but the speaker replied, with the sorrowful air of a man who is determined to do his duty, no matter how painful it may be, "I am obliged, gentlemen, to go into this, or you might think that everything was going on satisfactorily." The speaker wound up with a few autobiographical reminiscences, apropos of Professor Bentley.

Mr. F. W. FLETCHER put the following question:—

Whether the London Board of Examiners has adopted a regulation by virtue of which a candidate for the Minor examination, failing in the first or any subsequent subject, is prohibited from proceeding further in his examination? Whether such regulation has been approved by the Council and published in accordance with clause 11, section X. of the bylaws?

Section X. of bylaws, clause 11, states:—"The Boards of Examiners shall conduct all examinations according to the bylaws in force on that behalf, and according to such regulations as shall be made or adopted by them from time to time, and as shall have been approved by the Council of the Society. Such regulations shall, from time to time, be inserted in the published Report of the Transactions of the Society."

Clause 12 of same section provides that "all persons who shall tender themselves to the examiners for examination . . . shall be examined in the translation and dispensing of prescriptions, in botany, in materia medica, in pharmaceutical and general chemistry, the chemistry of poisons, and posology, which examination shall be called the Minor examination."

The PRESIDENT, who seemed to have had notice of this question, read his reply, which was to the effect that the Board of Examiners had adopted no such regulation as that suggested in the question, but the bylaws authorised them to grant or refuse certificates of competence after examination, and it had been their invariable practice when a candidate was found hopelessly incompetent in one of the subjects to inform him of his failure, and not to proceed further with his examination. The purpose of the examination was to test competency, not to measure degrees of knowledge below competency.

Mr. FLETCHER said the practice thus stated was a comparatively new one [this the President contradicted], and he considered it would be only fair to candidates that they should be informed of it on the notices sent to them. The cases which had directed his attention to the subject were those of two candidates, one of whom was rejected in dispensing and the other in pharmacy, both being their first subjects. The candidate who had failed in dispensing had to make six peppine pills; he made them too soft, and was at

once dismissed from the examination, though he expressly asked the chairman to be allowed to go through his other subjects. It seemed very hard that a candidate, who might have come up from Cornwall, after paying his fees and all his expenses should be rejected after a ten minutes' interview with one examiner, conducted under the most difficult circumstances.

Mr. WOOTTON asked that when the President came to reply to Mr. Fletcher he would explain how this practice of the examiners could be reconciled with the words of the Pharmacy Act, section 6, which required the examiners to examine such candidates as should tender themselves, in the examination as described in the Act of 1852.

The PRESIDENT said it was quite easy to answer that. A candidate was required to be competent in all the subjects, and if he failed in any subject that was sufficient ground for rejection.

Mr. WOOTTON said he could no doubt be rejected, but the point was whether he could not claim to be examined in the subjects set forth in the Act of 1852. He understood in the case referred to the candidate did make such a request and that it was refused.

Mr. T. WILLIAMS said if it was the practice to reject a candidate on a single batch of pepsine pills it was a gross injustice. No one could guarantee to make a batch always perfectly.

Mr. WHITTLE made some general remarks, in the course of which he referred to the presence of a cutting chemist on the Council.

Mr. BOWEN asked if there was any objection to state how much the new buildings were to cost.

The PRESIDENT declined to give exact figures, but intimated that the cost would be about 6,000*l*. It was elicited that the lease of the new property was for eighty years, at a ground rent of 60*l*.

Mr. CURTIS went back to the question of the examiners. He had known men who he was sure were fully competent, and who failed to get through. Why was this? Was it that one or two of the examiners had a too arbitrary manner? The same speaker discussed the Journal, urging that it ought to contain something that would aid apprentices and induce them to read it. He had had an interview with the editor, but that gentleman had told him they could not make their Journal into a "tit-bits newspaper."

Mr. URWICK undertook to explain any difficulty that might exist as to the examination, but his exposition only amounted to the statement that it was the rejected men who complained. Those who passed he had found did not complain. He mentioned Aberdeen and Lincoln as centres which showed a high percentage of passes in the Preliminary examination, and he considered that this must indicate, not that the inhabitants of those localities possessed better brains than others, but that in some way the teaching was more effective in those districts.

Mr. FURNESS (Sheffield) contributed a general commentary on the various parts of the report, accompanying his remarks with numerous hints that this speech was to be regarded as a preface to a more important one to be delivered a little later on. First he asked what proportion of the law costs might be regarded as having been incurred in promoting the Pharmacy Acts Amendment Bill. Although the 408*l*. law costs showed some increase over the normal, he thought it was not as much as a society with an income of 20,000*l*. —

This magnificent figure somewhat startled the audience, and Mr. Furness had to admit an error; but any way, he said, it was not as much as they ought to spend out of their large income for the protection of chemists and druggists, which he pointed out was one of the objects named in the charter. He thought the Council's conscience could not acquit them of having done their duty in this respect. When grievances were ventilated they replied with a *non possumus*, and said they must wait for a more opportune time. It was their duty to face obstacles and not to raise them, and if they could not remedy them they would have had the satisfaction of having done what they could. There was an item in the expenses of 147*l*. for altering a stable in Scotland, and on the other side was 9*l*. 19*s*. 6*d*. for rent of stable, which did not look like good finance.

The President interposed some rather angry remarks about fighting fairly, and then added the explanation, which might

have been in the statement, that the rent named was for half a year.

After a little more discussion with the President as to the date of the accounts and report, Mr. Furness came to the Early Closing Bill, which he thought the Council might have left alone. He advocated annual reports by local secretaries, and an extension of educational grants to local associations, which he said could not be self-supporting.

Mr. SMITH (Walworth) wished to urge very respectfully that the Council should take a little more account of the trading side of pharmacy in trying to investigate the hardships which did undoubtedly exist. They could not get away from the bread and cheese aspect, nor disregard the violent antagonism to which the trade was subject more in some places than in others. The Council were not responsible for this, but he thought they might extend a helping hand in some cases. He supported the curriculum scheme, as he knew that a large number of young men needed to be guided in their studies. He had had a considerable experience with apprentices, and the names of several who had been with him appeared on the boards in the room. Boys came into the trade tempted by the bright lights, and thinking it a grand thing to be a chemist. You cannot always make certain that they possess the necessary preliminary qualifications, nor can you supply them with brains, but by watching their capacity and helping them you can do them much service. Out of twelve or fourteen apprentices he had had all had passed. Some had been returned several times, and such as these would have found the curriculum a saving of cost as well as a help to them.

Mr. MARTIN, replying to some remarks which had been made as to the law costs, said he understood that these were spent not so much with the object of recovering penalties as with a view of enforcing the law. Another gentleman complained that the Council had not done their duty, and asked if their consciences could acquit them. He would ask, has he done his duty? If he knew of cases of infringement of the law, why did he not report them? As local secretary any case which was reported to him he reported to the Council, and he always found it received attention. As to the examination, he failed to see what difference it could make to a candidate whether he failed in one subject or in six.

The PRESIDENT, in replying on the discussion, said that many of the criticisms answered each other. For instance, in regard to trade questions he showed the difficulty of dealing with such by instancing the action of the Council in regard to the Early Closing Bill. Mr. Robinson agreed with them; Mr. Furness thought they ought to have left the question alone. Mr. Robinson asked, would the Council defend the trade in the event of thirty or forty members being attacked? He (the President) had no hesitation in saying that if such a case should arise the answer would be undoubtedly "Yes." The Society had always been willing to act when great questions arose, but he must warn the members that it could never become a trade protection society in the strict sense of the term. If such a society was wanted they must get one up separately, and they must have a much higher subscription than half a guinea; they must have a small executive, and the executive must not publish reports of its proceedings. It may or may not be desirable to have such an association, but certainly the Pharmaceutical Council could not do such work. In cases which affected the interests of the craft the Council would act; or, if it was doubtful whether they had the power, an outside body would be formed, as was done in the case of Betts, and the aggressor would be killed. But they could not take up individual grievances. In all corporations there were members who would find a grievance every quarter of an hour, and would like to have the assistance of the solicitor and of all the staff. Taking Inland Revenue cases as examples, the President stated that he had many letters from all parts of the country alleging grievances in regard to the Medicine Stamp Act. The Secretary of the Society which had been alluded to stated at a public meeting in London some time ago that in no case of the kind which had come before him had there proved to be, on investigation, the basis for a sound defence. He (the President) had had a similar experience. Perhaps in one case out of ten there seemed to be some hardship, but if that was so he had always found that a letter to the department was suffi-

cient to ensure careful attention. In this Act, which gave the Board greater power than they used, there were sure to be cases of doubt and difficulty; but common experience was that of some one coming and showing a label and bottle, stating that he had been summoned in regard to that. He would declare he had no placard, no advertisement. "I go down to Somerset House," said Mr. Carteighe; "I point this out to them, ask if there has not been a mistake, and they show me that the gentleman has had a beautiful advertisement of this article, not issued with it, but wrapped round some other bottle." The cost of the Pharmacy Acts Amendment Bill he did not believe amounted to a five-pound note so far in actual cash, but it had cost a lot of time and trouble to some people. Mr. Furness urged they should spend more in law. He supposed he meant they should spend more in Parliament, for the principal grievances could not be remedied except by new legislation. To get that they wanted not only the assistance of members of Parliament, but the intelligent efforts of their members all over the country. The President concluded a very effective reply by a further reference to the difficulties of examination illustrated from his own experience, and intimating that it was hoped when they got their new premises to be able to conduct the dispensing examination under more comfortable surroundings.

Mr. HOWARD HALL asked the President if he would state the result of the Benevolent Fund Dinner the previous night.

The PRESIDENT: 1,100/. was collected.

The report was then adopted.

Mr. FURNESS, in accordance with the notice he had given, then moved the following resolution:—

This meeting regrets that the Pharmacy Acts Amendment Bill, now before Parliament, contains no amendment of sec. XIX. of the Pharmacy Act, 1868, and requests that the Council (as promoters of the measure) will take steps to introduce into the Bill a clause giving a more popular, satisfactory, and just system of representation of the Pharmaceutical Electorate on the Council of the Society which governs their affairs.

Premising that he was a loyal supporter and admirer of the Society, and that he was heartily in accord with the policy of the Bill, he urged that a clause might be added to it without at all risking its chance of passing, calculated to give a representation of associates on the Council. There were in the Society 1,758 pharmaceutical chemist members, 694 chemist and druggist members, 1,281 associates in business, 899 associates not in business, and 1,194 apprentices. At present the chemist and druggist members can be represented on the Council to the extent of one-third of its number, but the Associates cannot be represented on the Council at all. At the time the Act was passed there were no associates in business, but in the ordinary course their numbers would continue to grow, and the number of the chemist and druggist members would decline. He was not quite sure whether the 20th section of the Pharmacy Act, 1868, which said that associates in business may attend all meetings of the Society and vote thereat, "and otherwise take part in the proceedings of such meetings in the same manner as members of the Society," could be construed to give them a right to election (because it was nowhere said that associates should not be elected). He was confident there would be no opposition to a clause making such a change in the constitution of the Society as he advocated, either in Parliament or from within. He had come to London to this meeting at great inconvenience to give the Council an opportunity of adding the clause he proposed to the Bill, but if they refused to do so he should reserve the right of exercising what other rights he might possess.

Mr. Furness elaborated his arguments at wearisome length, and exhausted the patience of the meeting. His speech and the almost equally lengthy one of the President in reply were enlivened, however, by a running fire of interruptions, between one and the other, which did not tend to the abbreviation of the discussion.

Mr. J. H. READ (Holloway) seconded the proposition.

The PRESIDENT said it might have been expected when a gentleman brought forward such a proposition that he would have looked into the history of the case affecting the question. He then explained how the proportion on the Council allotted to chemist and druggist members was the result of a compromise which had to be made in order to get any Pharmacy

Act at all, and went on to show that the Council had in 1883 drafted a Bill which would have had an effect similar to what Mr. Furness wanted, by making in future only one grade of qualified men, that is, all pharmaceutical chemists. But he declared strongly that this was contentious matter, and that to introduce it into their Bill would inevitably ensure opposition. The Council sympathised with Mr. Furness's views, but certainly all the members of the Society did not. He complained that the manner in which Mr. Furness had brought forward his motion was like holding a pistol at their heads. There were three sections of the Pharmacy Bill, namely, poisons, the internal arrangements of the Society, and education. It had been decided to proceed with the latter at present, and though he would be glad to see such a result as Mr. Furness aimed at, it would be a breach of faith with their members to introduce it now.

Mr. FURNESS said the past history of the disputes dealt chiefly with titles. As to the "pistol shot," he said he ought not to be charged with bringing this suddenly before the Society, because eight weeks since he had sent a letter on the subject to the *Pharmaceutical Journal*, which had been refused insertion. He could not see where any opposition was to come from.

The PRESIDENT said he had stated that there was opposition in as plain English as an Irishman was capable of.

Mr. Urwick, Mr. Newsholme (who said the Sheffield Society did not agree with Mr. Furness) and other members justified the President's assertion by declaring that they would be opposed to any such alterations as Mr. Furness desired. The latter, recognising that he had no chance of carrying his motion, ultimately withdrew it.

The President was about to wind up the business, when Mr. Fletcher asked if he would be in order in moving a resolution respecting the examinations.

The PRESIDENT: What is the resolution?

Mr. FLETCHER: I will read it:

That, in the opinion of this meeting, the acknowledged practice of the Board of Examiners of prohibiting a candidate failing in his first or any subsequent subject from proceeding with the examination is contrary both to the letter and the spirit of section VI. of the Pharmacy Act, 1868, and is calculated to inflict great injustice upon a large class of candidates.

The PRESIDENT: Quite out of order, sir. This meeting cannot make regulations for the examinations.

The scrutineers for the election of Council were then appointed.

Mr. BELL (Hull) moved a vote of thanks to the President, Vice-President, and Council for their services during the past year, remarking that this duty had been omitted for some years past. Mr. Furness seconded the motion, and the President acknowledged it.

The PRESIDENT announced that the meeting would be adjourned till 4 P.M. the next day, when the report of the scrutineers would be received. They had previously adjourned till the Friday, but they had made this alteration for the convenience of the weekly press.

The meeting adjourned at 3.30 P.M.

ADJOURNED MEETING.

ON Thursday, at 4 P.M., one member and one associate in business of the Society met, along with the President, the chairman of the scrutineers, and the representatives of the press, to receive the report of the scrutineers.

Mr. Carteighe called upon Mr. Howard Hall to read the report of the scrutineers, which is as follows:—

Voting papers issued ...	...	...	...	3,541
" " received ...	...	...	...	1,718
" " issued but not returned ...	...	...	...	1,823

Voting papers received ...	...	...	...	1,718
" " disallowed, informal ...	...	...	...	21
" " " received too late ...	...	...	...	74
				95

Recorded ... 1,623

Atkins, S. R., Salisbury ..	1,305	Newsholme, G. T. W., Sheffield	1,034
Symes, C., Liverpool ..	1,301	Williams, J. ..	1,022
Southall, A., Birmingham ..	1,299	Evans, Gwilym, Llanelli ..	1,004
Baldon, H. B., Edinburgh ..	1,281	Robbins, J., London ..	975
Cross, W. G., Shrewsbury ..	1,230		
Savage, W. D., Brighton ..	1,197	Martin, N. H., Newcastle-on-	
Carteighe, M., London ..	1,188	Tyne ..	951
Hampson, R., London ..	1,146	Butt, E. N., London ..	834
Hills, W., London ..	1,140	Harrison, J., Sunderland ..	848
Richardson, J. G. F., Leices-		Watt, J., Haddington ..	760
ter ..	1,066	Neve, F. C., St. Leonards ..	685

(Signed) T. HOWARD HALL, Chairman.

J. W. Bowen	W. Ralph Dodd
Joseph M. Furness	R. S. Bathe
S. J. Weston	T. Howell Williams
Henry Bate	T. Henry Powell
Edward B. Stamp	T. O. Sandell
W. Merton Holmes	F. Bascombe
William Arkinsall	F. Creswell
Henry Matthews	William Warren
Thomas S. Dymond	William Howell
J. W. Shepherd	Henry C. Birch
W. H. Symons	Albert Cooper
R. Fisher Young	S. T. Burford

The PRESIDENT said that he had to declare that the first fourteen of the above-named gentlemen, with the following, who at present hold office, would constitute the Council for the year, viz:—

Allen, C. B., Kilburn, N.W.	Radley, W. V., Southport
Bottle, A., Dover	Schacht, G. F., Clifton, Bristol
Gostling, T. P., Diss	Woolley, G. S., Manchester
Greenish, T., London	

He then moved a vote of thanks to Mr. Howard Hall and the scrutineers, which was unanimously accorded.

THE REDWOOD TESTIMONIAL.

AT four o'clock about a hundred of the subscribers to the Redwood Testimonial met in the Lecture Theatre to do honour to the veteran pharmacist and Emeritus Professor whose portrait was to be given into the custody of the Pharmaceutical Society. Mr. Carteighe, who was accompanied to the platform by Dr. A. B. Garrod, took the chair a few minutes past four.

In opening the proceedings, Mr. CARTEIGHE said that this was the concluding ceremony connected with the Redwood Testimonial Fund. He did not require to explain the meaning of the fund; simply, the money was subscribed by friends in pharmacy, medicine, and science, who wished to do honour to Dr. Redwood. [Here the Emeritus Professor quietly stepped into the theatre, and the company noted his entry by a tremendous round of applause.] Mr. Carteighe, resuming, said that the amount of money subscribed had enabled the committee to found a Redwood scholarship, to have a portrait of their friend painted in oil, and they were also enabled to present a replica of the portrait to the Professor's family. He then called upon Dr. Garrod.

Dr. GARROD said that he considered it a high honour to be entrusted by the committee with the duty of presenting the portrait to the Pharmaceutical Society and to take part in the day's proceedings. It would be in the recollection of the meeting that at a gathering of Dr. Redwood's friends it was considered that some public recognition should be made of the long and valuable services which he had rendered to pharmacy, and it was resolved that this recognition should take the form of a scholarship to perpetuate the name of Redwood in connection with the school of the Pharmaceutical Society, and that his portrait should be painted so as to be placed on these walls. The efforts of the committee which had been appointed, with Mr. Carteighe at their head, had been attended with considerable success. They did have a sufficient surplus to have a portrait painted by Mr. Sydney Hodges, and this he now desired to bring under their notice, and on behalf of the Testimonial Committee to give it into the custody of the Society, so that, being placed on the walls of that house, it might perpetuate the memory of the Professor and stimulate the students of the school to higher efforts in furthering the progress of pharmacy. [Here Dr. Garrod, amidst loud and prolonged applause, removed the cloth from

the portrait.] They showed by that applause that the portrait was an admirable one; it was a reflection of the Professor in his best moments. (Laughter and Hear, hear.) He would not go over all that Dr. Redwood had done for the progress of pharmacy and science generally, because he felt that many of those present knew well what that was, but he read from the preliminary circular of the Testimonial Committee the leading features in his career—for example, the Professor's connection with the Pharmaceutical Society as a lecturer since 1842; his services to the Chemical Society as a fellow and an officer since 1852; his long connection with the Pharmacopœias of this country, first with the London Pharmacopœia, and finally with the British Pharmacopœia as editor of the 1867 edition and co-editor of the last. His work as a writer of books and as a consulting chemist was also mentioned, and then Dr. Garrod proceeded to say that he had had the pleasure of Dr. Redwood's acquaintance for forty-five years, during which time he was so intimate with the Society that he considered him part and parcel of it. He remembered him as a lecturer in days gone by. Once he had had the pleasure of hearing him give a lecture on magnetism, which was so well done in every respect that it had ever since struck him as a model exposition of the subject and a type of what a lecture should be. That reminded him of a little incident of his early days in connection with the Chemical Society. Along with Dr. Graham, the late Master of the Mint, and Professor Fownes, Dr. Redwood and he had gone to Kew to witness some novel experiments in telegraphy, and after they had carefully studied the scientific aspects of the experiments they adjourned to a less scientific but not less interesting entertainment at Richmond. (Great laughter.) In conclusion, he trusted that the Professor would live long to enjoy the good wishes and appreciation of his friends in pharmacy and science, and with that hope he begged to hand over the portrait to the custody of the President. (Applause.)

Mr. CARTEIGHE said, on the part of the Pharmaceutical Society, he had great pleasure in receiving the portrait. He considered it not the least eventful point in his presidential career that on this the last day of his presidency he had been deputed to receive the portrait. As an old pupil of the Professor's he appreciated what Dr. Garrod had remarked regarding the fluency and clearness of the Professor's style. He had had to contend with great difficulties in imparting education to the young pharmacists of past generations, and he had overcome those difficulties. As a lecturer on physics he considered that Dr. Redwood was in his early days unequalled. He thought that the members of the Society would congratulate themselves on receiving this addition to their art collection, and he could say of the portrait that it would be in good company with Jacob Bell, Thomas Hyde Hills, and George Webb Sandford. (Applause.)

Dr. REDWOOD, on the invitation of the Chairman, rose to address the meeting; but it was some minutes before he could proceed owing to the hearty nature of his reception. He thanked Dr. Garrod for the kind words which he had used and the meeting for their reception. The pharmacists, scientists, medical men, and others who had been concerned in the honour which was done to him that day imposed upon him, he said, a debt of gratitude which he could not sufficiently respond to. He was deeply grateful to those who had carried out the scheme, and to the originators of it for their consideration of his feelings as to the nature which the testimonial should partake. As an expression of his desire to carry out the interests of pharmacy and the Pharmaceutical Society, he suggested that the scholarship should be used as a means of prolonging the studies of students who had showed special aptitude and success in their first year at the school. He considered that the time ordinarily allowed was much too short for the requirements of good pharmacists, and he greatly wished that those who were deserving should be encouraged to complete their studies. (Applause.) Again he thanked them most cordially, and in a concluding sentence said that, feeling that he had strength, he would give it to the furtherance of the cause to which he had so long devoted himself—the progress of pharmacy and the Pharmaceutical Society. When the Professor sat down the audience spontaneously rose and gave him three hearty cheers.

A vote of thanks to Dr. Garrod concluded the proceedings. The portrait, which is a striking likeness, shows the Pro-

fessor sitting at a table with his right arm resting upon it. A beaker containing a greenish-blue fluid (evidently a solution of a ferrous salt) and a Bink's burette containing bichromate of potash solution occupy the corner of the table. The portrait bears the following inscription:—

DR. THEOPHILUS REDWOOD,
Professor of Chemistry and Pharmacy to the
PHARMACEUTICAL SOCIETY
of Great Britain from 1842 to 1885.

Presented to the Society by his old pupils and friends.
(1887.)

It will interest many to know that Dr. Redwood is now 82 years old, and is remarkably vigorous, as is evident from the concluding sentence of his speech on Wednesday. He then spoke with wonderful fluency and vigour, and his voice had a resonance about it such as many men half his age would be proud of.

The proceedings lasted a little short of half an hour, and were enthusiastic throughout.

CONVERSAZIONE.

A CONVERSAZIONE of the adherents of the Society and their friends was held in the South Kensington Museum on Wednesday evening. The guests, who began to arrive shortly after eight o'clock, were received by the President and Mrs. Carteighe, along with whom were the Vice-President (Mr. Gostling), the Treasurer (Mr. Robbins), Messrs. Atkins, Butt, Schacht, Greenish, Allen, Hills, and other members of the Council. The reception lasted until nine o'clock, by which time nearly 3,000 ladies and gentlemen had arrived. The picture galleries appeared to attract the bulk of the company, and there are so many quiet corners about the museum that ardent admirers of ceramics and other departments of art had to be careful that they did not stumble upon specimens of another and living art which were to be found in the nooks. At 8.30 the band of the Royal Horse Guards (Blues), with Mr. Charles Godfrey, conductor, commenced the musical entertainment. The programme was a good one, and while it lasted the vicinity of the band was in a congested state. Also in the course of the evening a glee party under the direction of Mr. Winn gave three entertainments in the lecture theatre, each lasting half an hour. The entertainments were deservedly popular, and drew crowded audiences; in fact, had the number been three times three there would still have been large audiences. The company began to leave about eleven, and by twelve o'clock the officials had the place all to themselves. The evening was a very enjoyable one, and the arrangements gave every satisfaction.

Trade Notes.

MESSRS. BARCLAY & SONS have just issued a new catalogue of proprietary medicines and druggists' sundries. In all cases net cash prices are quoted.

MESSRS. H. A. GOODALL & Co., of Bartlett's Buildings, Holborn Circus, have just published a new edition of their catalogue of brushes and combs of every kind, and an immense variety of sundries, many of which overlap into the chemist's trade. The catalogue consists of 260 pages, is profusely illustrated and completely priced. Chemists will find in it many sundries which they can advantageously add to their businesses. The firm send out no travellers and do business entirely from catalogues and advertisements.

WE have received from Mr. T. Brooks, chemist, Louth, an additional list of his recipes and formulæ. Mr. Brooks's business has made rapid strides, and he succeeds in keeping in advance of his business by the steady production of novelties. Chemists should examine the new list.

In their new warehouse, at 4 Cree Church Lane, Leadenhall Street, Messrs. H. Potts & Co., importers of German druggists' sundries, have fitted up a show-room principally to display the various sizes and styles of druggists' shop bottles and jars, with burnt-in labels; and add interest to the show

by the addition of novelties in the way of pharmaceutical apparatus and other sundries. We observed in the show-room a new poison-bottle, which deserves attention. It is a fluted blue-glass round, with the label, in vitrified white letters, prominently placed in front, and at the bottom the word "Poison" in red letters. The effect is striking and advantageous. The firm have just issued a new price-list in which sets of bottles and jars are arranged according to size. Those who are fitting or refitting shops will find this list convenient. The merit of the bottles is the labels are prominent and indestructible.

MARRIAGE.

[Notices of Marriages and Deaths are inserted free if sent with proper authentication.]

BELL—GLOVER.—At the Presbyterian Church of England, North Sunderland, Northumberland, by the Rev. George Henderson, Joseph Bell, chemist, Manchester, to Eleanor Mattison, only daughter of the late Rev. Hugh Glover, North Sunderland.

DEATHS.

CARPENTER.—On May 12, at Bristol, Mr. John Thomas Carpenter, chemist and druggist. Aged 48. Mr. Carpenter was formerly in business at Teignmouth, where he succeeded his father. He removed to Bristol in 1872, and since that date had conducted the well-known business of Mr. Henry Hadder in Broad Street. For some years he has been assisted by his son, Mr. Edmund Carpenter, who now succeeds him in the managership. "Merchant" writing in the *Western Daily Press*, refers to the deceased as follows:—"It is well known how, like an increasing ball of snow, Mr. Hodder's business has extended and developed. Mr. Carpenter devoted himself conscientiously and earnestly to it. Following lines instigated by his employer, using his own active brain and clear judgment in keeping up with the times, ably supported by his son, who for some years has been an important factor in the business, he was an example worthy to be copied for promptitude, energy, and zeal. Those who have had to do with him, either in making sales or effecting purchases, could not fail to be struck with the way in which he had the necessary knowledge at his fingers' ends. While excessively fastidious as to the quality of goods he purchased, he knew well what was the fair price, and never took or asked for any unfair advantage; and thus it was a pleasure to have transactions with him, and thus he gained a name for being an honourable, good, and gifted man, with many sterling qualities.

CUTTING.—On May 15, Mr. Thomas John Cutting, pharmaceutical chemist, Selby. Aged 52. Mr. Cutting was attending to business on the day preceding his death, but was evidently unwell. Becoming worse it was found that he was suffering from abscess in the head, and he died early on Sunday morning. Mr. Cutting was a Wesleyan local preacher, and took an active interest in many Christian and philanthropic societies.

DUNN.—On May 15, at St. Austell, Cornwall, Sampson Dunn, chemist and clay merchant. Aged 53.

POTTS.—On May 6, Mr. Samuel James Potts, chemist and druggist, Mansfield. Aged 52.

SILBER.—Silber & Fleming (Limited) regret to announce the death of Mr. A. M. Silber, which took place on Saturday evening last, after a short but severe illness. It will be remembered that on June 24 last Mr. Silber issued a circular announcing that, "with the object of avoiding any interruption in the working of the business, through sudden illness, death, or otherwise," he had determined to register it as a private limited company, which was done, and the business will consequently be continued as heretofore.

SPOUNCER.—On May 13, at his residence, Lindum Villa, Northolme, Gainsborough, Mr. Thomas Spouncer, senior partner in the firm of Spouncer & Sons, wholesale druggists, Gainsborough. Aged 86. The deceased, who was a native of Hull, had carried on business in Gainsborough since 1822, and had taken an active part of the management of the concern until a few years ago. He was a prominent member of the Wesleyan body, and for many years was a much respected local preacher in his circuit.

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

M. TREUB, the director of the Botanical Garden at Buitenzorg, Island of Java, is now visiting his Parisian friends, while on his usual trip to Europe. He is the editor of the "Annales du Jardin Botanique de Buitenzorg," published in Leyden.

THE RIBERI PRIZE.—The Turin Academy of Medicine have selected for the Riberi prize of 20,000f. the following subject:—"Researches on the nature and prophylaxis of one or more of the infectious diseases affecting man." Manuscripts in Latin, French, or Italian will be received until December 31, 1891. Printed essays will also be admitted to compete.

A MEMORIAL TO A CHEMIST.—The interne pharmacists of the Lariboisière Hospital on May 11 placed in the laboratory a memorial tablet in honour of their late pharmacist-in-chief, F. A. Amand. The inscription recalls that the deceased was the author of "Galactimétrie," a rapid analytical process, the use of which insures hospital patients a supply of pure wholesome milk.

NAVY PHARMACISTS.—In a recent circular Admiral Aube has decided that pharmaceutical students in the naval medical schools cannot be matriculated until they have completed their regulation time of service (*stage officinal*) in an ordinary pharmacy. They are thus placed upon the same footing as the other students, who must have served a three years' apprenticeship before they can matriculate in a college of pharmacy.

THE VICHY LOZENGES LITIGATION.—The Court of Orleans, on May 10, confirmed the decision rendered by the Provins Court, holding that Vichy lozenges are medicaments and may not be sold by grocers. It will probably be remembered that the Paris Court having decided otherwise, the Association of French Pharmacists appealed to the *Cour de Cassation*, which quashed the judgment, and sent the case for a new trial before the Orleans tribunal. The decision is said to be forcibly worded, but the text has not yet been received here.

THE TOMATO MILDEW.—Southern tomatoes, it seems, have caught from the vine the new fashionable American disease. So M. P. Carles informed the Bordeaux Pharmaceutical Society at one of their meetings. At the same time he indicated the remedy which suggested itself, namely, the application of the "Bordeaux pap," so successful with the grape vine. [The formula for which has been published in THE CHEMIST AND DRUGGIST, October 9, 1886.] He found the treatment excellent, both as a preventive and a cure. Only he recommends that henceforth all tomatoes, before either cooking or preserving, should be given a good washing. With this simple precaution M. Carles thinks no danger is to be apprehended.

ARTIFICIAL CLOUDS.—Pagny-sur-Moselle, the rural locality which lately witnessed the Schnaebeler misunderstanding, is again spoken of in the papers. But this time the occurrence is a peaceful one, simply consisting in the artificial clouding of the atmosphere to prevent one of those spring frosts so dreaded by vintagers. During the night of May 13 the appointed watchers gave the alarm, and the whole village turned out with the necessary apparatus. Soon everyone was at his post, and huge coal tar fires were burning in various places, filling the whole district with a dense smoke. The thermometer showed -1.5°C . (29°F .) before the operation, but it soon went up near the soil, owing to the prevented radiation, and the tender shoots escaped the freezing otherwise inevitable. The bonfires numbered 380 for a district of about 275 acres.

DEATH OF PROFESSOR VULPIAN.—Professor Vulpian, member and life secretary of the Academy of Sciences, died on Tuesday night from congestion of the lungs. He was sixty-one years of age. As a doctor at the Salpêtrière he began to attract attention in 1860, about which time he was appointed Lecturer on Anatomy and Pathology at the School of Medicine. His candidature was violently opposed in the University Senate by a M. Maret, of the Faculty of Theology, who scouted Dr. Vulpian as an atheist. The latter was, however, awarded the lectureship by a majority of a single vote,

In 1876 he was received into the Academy of Sciences. Notwithstanding the views attributed to him in matters of religion he was called to attend the Comte de Chambord in his last illness. M. Pasteur took his opinion before inoculating the virus of rabies on man. Professor Vulpian was one of the warmest advocates of the Pasturian method.

A STATEMENT OF MINISTER BERTHELOT is causing no little excitement among playgoers and actors. He remarked the other day that the Opéra Comique Theatre is a dangerous structure in case of fire. Should this, coupled with the usual gas explosion, occur during a performance, he thought but few of the audience could escape, and perhaps none of the actors. Besides, he added, every theatre is known to burn down, on an average, once every one hundred years, and the Comique has been standing unburnt ever since 1783. On being urged to remedy the defect, M. Berthelot, who has been used to handle most villainous explosives in his laboratory, took it rather coolly, replying that the alteration would cost some 120,000f., and he had positively no such sum about him, or to spare from the funds in his ministerial department; the Minister of Finances was the man to apply to. But he of the Treasury, already labouring under a heavy deficit, declined to interfere, and M. Carvalho, the impressario, feels very unhappy.

THE LIQUOR AND PERFUMERY TRADE WITH SWITZERLAND.—The Swiss Government have concluded with France a convention, needing only parliamentary confirmation—generally a mere formality. In case the alcohol monopoly law is adopted by popular vote in Switzerland, the former import duties provided for by the existing treaties shall be replaced by the following:—On all natural distilled liquors, unsweetened and unflavoured, namely, alcohol, brandy, rum, &c., 40 centimes per 100 kilos. (very nearly $1\frac{3}{4}$ d. per hundred pounds) per degree Gay-Lussac or Tralles, when in wood. When in bottles or jars, 24f. per 100 kilos., without regard to strength. Liqueurs, sweetened and flavoured, 24f. per 100 kilos. Acetic acid, 8f. per 100 kilos. On all French perfumery and cosmetics, alcoholic or not, 30f. per 100 kilos. The convention is to remain in force as long as the treaty of commerce of 1882, and must be confirmed before December 31, 1887. Since the foregoing was published in the *Journal Officiel*, the Swiss people have voted in favour of the alcohol monopoly.

BOUSSINGAULT (Jean-Baptiste-Joseph-Dieudonné), the celebrated chemist, died on May 12, in Paris, his native place. He was born in 1802. After graduating at the St. Etienne School of Mines, he was sent by an English company to South America to reopen old abandoned mines. He was at first successful, and found time to publish observations on tropical phenomena which attracted much attention, notably on the part of Humboldt, who was then working in the same field. But soon war broke out between Spain and its colonies, and Boussingault was obliged to abandon the enterprise. He joined the staff of Bolivar, the *Libertador*, but remained ever more of a scientist than a soldier, exploring to great advantage Bolivia, Venezuela, and the country situated between Carthage and the mouths of the Orinoco. Returning to France in 1833, he was appointed a professor of chemistry to the Lyons Faculty of Sciences, and soon was elected to the presidency of the same faculty. In 1839 he was elected to the Academy of Sciences, and accepted the chair of agricultural chemistry at the Paris Conservatory of Arts-et-Métiers. For a while he wasted his time on politics, during the short-lived Republic of 1848, but soon returned to his favourite study—chemistry. The application of the science to agriculture was the branch he selected. His more important works bear upon the management of soils, feeding of cattle, analysis of manures, composition of atmospheric air, rural economy, and agricultural and physiological chemistry.

QUICKSILVER, known to the Plinies and Dioscorides, was first authentically used by Avicenna and by Paracelsus. The first mention, however, of calomel we find in the seventeenth century, when it was known under various synonyms, such as aquila alba (the white eagle), leo mitigatus, drago mitigatus, panchymagogum, or mineral manna. It has held its own ever since, and is one of the first on the list of the present armamentarium.

THE NEW HONORARY MEMBERS OF THE PHARMACEUTICAL SOCIETY.

THOMAS RICHARD FRASER, M.D., F.R.S., F.R.C.P.E., Professor of Materia Medica and Clinical Medicine, and Dean of the Faculty of Medicine, University of Edinburgh. Professor Fraser is a graduate of the university of which he is now a professor. Shortly after he graduated as M.D. (1862) he was appointed a lecturer of the Edinburgh School of Medicine, and while serving in that capacity he commenced a long series of investigations on the chemical and physiological action of drugs. Professor Crum Brown was associated with him in this work, and the more powerful alkaloids were specially investigated. It was while engaged in this work that Dr. Fraser discovered the mydriatic properties of calabar bean. On the resignation of the late Sir Robert Christison in 1877 of the chair of Materia Medica in the Edinburgh University, Dr. Fraser received the appointment. He also acts as a Clinical Professor of Medicine at the Edinburgh Infirmary, and as Dean of the medical faculty. In his lectureship days Professor Fraser was a contributor to the evening meetings of the North British Branch of the Pharmaceutical Society. He was for some time a member



PROF. T. R. FRASER.

of the General Medical Council, and is a fellow of most of the learned societies of the kingdom. Two years ago, as president of the pharmacology and therapeutics section of the British Medical Association, he delivered an address on "Strophanthus and other Heart Tonics," which has fairly established that drug as a medicinal agent. Professor Fraser is a lucid lecturer, and is greatly respected by his students.



PROF. LADENBURG.

Professor Ladenburg, Ph.D., Hon. M.D., Professor of Chemistry and Director of Chemical Laboratories in the

University of Kiel. This accomplished chemist has added enormously to chemical literature since he first commenced his long series of researches fully twenty years ago. Organic synthesis has been the field of his study, and in connection therewith his investigations have branched into various studies of alcohol derivatives and bodies of the aromatic series. Amongst the organic bodies which he first studied, and which he succeeded in building up synthetically, are anisic acid and tyrosin. Latterly Dr. Ladenburg has made the constitution and synthesis of alkaloids his special study, and his mode on the whole subject is of great interest. He succeeded three years ago in forming atropine synthetically, and has thrown much light on our knowledge of the mydriatic alkaloids generally. His latest discovery is the synthesis of coniine.

Professor J. M. Maisch, Professor of Materia Medica and Botany, Philadelphia College of Pharmacy, and permanent secretary of the American Pharmaceutical Association, Philadelphia. Mr. Maisch was born at Hanan, in Prussia, in 1831, but removed to America in his eighteenth year, and



PROF. J. M. MAISCH.

occupied positions in pharmacies in Baltimore, Washington, Philadelphia, and New York, successively. In the last-named city he was engaged in a responsible position in Dr. Squibb's laboratory, and from 1861 he held the position of Professor of Botany and Materia Medica in New York College of Pharmacy. In 1863 he returned to Philadelphia as chemist in charge of the Government laboratory, and when this was closed, at the end of the war in 1866, Mr. Maisch bought a pharmacy, which he conducted successfully for five years. During this time he succeeded Professor Proctor as editor of the *American Journal of Pharmacy*, and also filled the chair of Botany and Materia Medica in the Philadelphia College of Pharmacy, which was vacated by Mr. Parrish when Professor Proctor retired from the chair of Pharmacy. These eminent positions Professor Maisch still holds, and he has also done notable work since 1865 as recording secretary of the American Pharmaceutical Association. To that association, as well as to the journal he conducts, Mr. Maisch has contributed a large number of original papers of the highest pharmaceutical value. He is joint-author of Stillé and Maisch's "National Dispensatory," and one of the editors of the *U.S. Pharmacopœia*.

C. Méhu, M.D. Paris, Member of the Academy of Medicine, Paris, Pharmacien de l'Hôpital Neckar, past President of the Pharmaceutical Society of Paris, is probably the most scientific of French pharmacists. He has written numerous papers on pharmaceutical subjects, such as the modes of administering phosphorus and the solubility of biniodide of mercury; but his work has been chiefly of a medico-chemical nature. In this connection he has written various papers on the constitution of urine, and on the presence of foreign bodies, such as indigotin, therein. He also analysed the con-

tents of the uterine cyst, and has made a study of the combination of various medicinal bodies with albumen. France will appreciate the honour done to one of her sons.



DR. C. MÉHU.

Anton v. Waldheim, President of the Gremium of Pharma-



ANTON V. WALDHEIM.

cists of Vienna, Vice-President of the Austrian Pharmaceutical Society, Chairman of the International Pharmacopœia Com-

mission, Vienna, owes his honorary membership to his services to pharmacy as editor of the draft of the International Pharmacopœia which was submitted to the International Pharmaceutical Congress at Brussels in September 1885, and which was printed in full in *THE CHEMIST AND DRUGGIST*, October 1885. Mr. von Waldheim was, we believe, at one time engaged in the pharmacy of Messrs. John Bell & Co., Oxford Street, London.

Professor Pasteur, Member of the Institute of France, F.R.S., Paris. We have sketched the brilliant career of this most famous of scientific men on previous occasions, and cannot compress any account of it into such space as is available here. Born at Dole in 1822, the son of a tanner, M. Pasteur has acquired a reputation as a chemist, a physio-



LOUIS PASTEUR.

logist, and a biologist second to none in the world. His investigations into the subject of fermentation led, in succession, to his practical studies in regard to vinegar, wines, silkworm diseases, splenic fever, and more recently to the studies of hydrophobia, which have called forth such animated discussions throughout the world. Professor Tyndall has declared that the commercial value of Pasteur's scientific services to France more than balances the five milliards paid to Germany. The addition of his name to the roll of the Pharmaceutical Society is a great honour to the association.

POISONING WITH BISMUTH.

THE Paris correspondent of the *British Medical Journal* gives particulars of a curious case of poisoning with subnitrate of bismuth, which had been used as a topical application to a large burn on the left arm of a woman of thirty. The dressing was changed every two days, but became very offensive. A fortnight after the dressings were commenced the patient complained of a sore throat, and on examination the palate, uvula, and tonsils were found to be covered with a false white membrane, which two days later became black at the edges. The symptoms of poisoning continued to develop, the breath being very offensive and the palate gangrenous. A month after the dressings were commenced violent diarrhoea and continual vomiting set in, with other alarming symptoms (such as loosening of the teeth), which required the applications of bismuth to be stopped. The remarkable point about the case is that the bismuth is stated to have been pure.

PHENOL MERCURY, a compound having the formula $C_6H_4OHg.OH$, is stated to be a mild mercurial, which rarely produces salivation and stomatitis. It is given in pill form, each pill containing $\frac{1}{4}$ of a grain. Two pills may be given the first few days, and the number gradually increased to six.

MORPHIA-POISONING.—Dr. Macpherson, of Invercargill, N.Z., gives particulars in the *Australian Medical Journal* of a case of poisoning by an unusually large dose of morphine acetate which was followed by recovery. The patient, a chemist, had swallowed 15 grains of the narcotic in mistake for pepsine. He at once took a very large dose of ipecacuanha wine and called on Dr. Macpherson. A dose of apomorphia was administered subcutaneously, but it produced no effect, nor did 20 grains of sulphate of zinc and another ounce of ipecacuanha wine. Copious draughts of warm water at last produced emesis, and by keeping the patient walking about for a few hours he completely recovered.

THE MANCHESTER EXHIBITION.

FIRST NOTICE.

AMONG the many memorials of this fiftieth year of Her Majesty's reign none has, so far, so well achieved its purpose as the splendid exhibition which was opened in Manchester on May 3, and which is officially known as the Royal Jubilee Exhibition. The professed object of this institution is to illustrate the progress made in the development of Arts and Manufactures during the Victorian era, and there can be no difference of opinion concerning the success which has attended the efforts of the organisers in realising this aim. In point of number and diversity of exhibits the Manchester Exhibition does not approach last year's Colonial and Indian Exhibition at South Kensington, but it far surpasses any of the recent London shows in the extreme care and the business-like manner with which exhibits of the same class have been grouped together. This is no small matter to the visitor who comes with the object of studying the exhibits in order to acquire knowledge and to gain experience, as distinct from the mere lounge. Nothing was more provoking at the South Kensington shows than the gross inaccuracies of the official catalogues and the unsystematic manner in which contributions which should have been placed in close proximity were scattered about in all parts of the buildings. Another great advantage of the Manchester show is its virtual completeness. With a very few exceptions all exhibits were perfectly ready on the opening day, and only in the grounds of the exhibition the finishing touches are here and there being given to flowerbeds and fountains.

The exhibition is situated at Old Trafford, adjoining the Botanical Gardens. It extends over an area of thirty-three acres, fourteen of which are occupied by buildings, the remainder being laid out as ornamental gardens and recreation grounds. There is also a very beautiful reproduction of business streets in Old Manchester and Salford, with workmen pursuing their various callings in the costumes of the sixteenth and seventeenth centuries. The *pièce de résistance* of the show, in the way of exhibits, is the machinery section, which covers no less than 176,380 square feet, as compared with 20,000 square feet assigned to that section at the Colinders, 45,000 square feet at Liverpool, and 17,000 square feet at Edinburgh. The exhibition is further divided into industrial sections, planned to show the advance of the various applied arts during the Victorian reign.

The fine art section includes a magnificent picture-gallery, which, together with the gardens, Old Manchester, and a fairy fountain, is expected by the promoters to work wonders in attracting that numerous class of visitors to whom industrial exhibits are of minor interest.

The third section, devoted to the chemical and allied industries, contains some 250 exhibits, and is, of course, from a business point of view, the most interesting department to the pharmacist. But before entering upon a detailed description of the exhibits in this section some mention should be made of the Irish Court, in which also a not inconsiderable number of exhibits connected with pharmacy are shown.

THE IRISH SECTION.

The exhibits in the Irish section are well calculated to dispel the notions entertained by a majority of the British public that the sister-country possesses no industries of her own except linen in the North, farm products in the South, and liquors in Dublin. The promoters of the exhibition have succeeded in bringing together in the Irish department close upon two hundred exhibits from all parts of Ireland, and representing a variety of industrial pursuits, of which any nation might be proud. We understand that this successful display of Irish enterprise and industry is in no small measure due to the efforts of Mr. Richard J. Moss, F.C.S., of Dublin, the conductor of the Corner for Students in THE CHEMIST AND DRUGGIST.

The Irish aerated-water industry is well represented in the section. Messrs. Cantrell & Cochrane, of Belfast, whose premises suffered from fire the other day, have a good show of their world-famed aromatic ginger ales, potash and lithia waters, and syrups. The handsome stand of Messrs. W. A. Ross & Co., of Belfast, is got up in a somewhat novel fashion,

rows of various bottles of the firm's well-known beverages supporting the sides of the stand from the outside, instead of being shown behind a glass-case. Messrs. Deans, Hadden & Co., of Belfast, also contribute their quota by a show of ginger and quinine wines, cordials, bitters, and "Ulster Liqueur." The city of Belfast, by reason of its abundant supply of exceptionally pure water, is particularly well situated for the development of the aerated-water industry, and its energetic citizens have not been slow in turning this advantage to account. In many factories the water used is derived from natural springs found in the grounds of the works.

Belfast, however, is not the only place contributing exhibits of the temperance drinks, which to some extent may neutralise the exhilarating or depressing effects (according to the spectator's pro- or anti-alcoholic propensities) of the gorgeous exhibits of the Irish whisky industry. One of the finest displays in the entire Irish section is made by Messrs. Bewley & Draper (Limited), of Dublin, who have two very tastefully arranged stands. The one contains a varied and very effective display of inks and aerated waters, ginger wine being especially prominent among the latter, and the aptly-named *Bis et cito* copying-ink among the former. In the second stand the firm show a large variety of perfumery, toilet requisites, and medicaments of such a nature as orange and quinine wine and peppermint cordial. Messrs. Bewley & Draper make a speciality of Cologne and lavender waters, the former put up in the well-known bottles, though why the labels on these should display a fancy view of the city on the Rhine instead of the one on the Liffey is not quite clear. The boxes containing one dozen assorted perfumes appear especially effective.

In the immediate neighbourhood of these stands may be found the exhibit of Messrs. Frederick Lewis & Co. (Limited), of Dublin, containing a large variety of perfumes and toilet requisites, the latter mainly consisting of depilatory powders and hair-restorers.

Messrs. Alexander Crawford & Son, of Belfast, exhibit amylaceous food and starches, the former, put up in neat packets, forming a substantial pyramid in the centre of the case. The amylaceous food, prepared from wheat, is recommended as a substitute for arrowroot, while the starches are especially recommended to bleachers and calico-printers.

The goods exhibited by Mr. Alexander Finlay, of Victoria Square, Belfast, are of a character which enables a much more effective display to be made than is the case with most put-up articles. The centre of the firm's exhibit consists of four tall pyramids of soap—blue mottled, grey mottled, blue and red mottled, and pink. These are surrounded by pine, tar, and walnut soaps in packets and bars, and by sperm and paraffin candles.

Messrs. Cherry & Smalldridge, of the Seville Works, Dublin, have a case of mustard in the raw and manufactured state, the latter wrapped up in the well-known deep yellow covering now so much affected by mustard makers.

Messrs. F. King & Co. (Limited) are exhibitors in the Irish as well as in the chemical sections of the exhibition, but their principal effort has been reserved for the Irish department, where they make a by no means inconsiderable display of their specialities, such as desiccated soup and preserved potatoes. Messrs. King & Co.'s stand contains, moreover, a preparation which, one would consider, bears but a remote connection with soup or potatoes, viz., packets of "Edward's Valley Moss Asthma Cure." The picture of two not very asthmatic-looking New Zealanders on the packet suggests the origin of the remedy in Antipodean climes. Messrs. Molyneux & Ferguson, of Belfast, have a small stand of Irish wheat starches in this same neighbourhood; and next to them a very substantial case contains the contributions to the exhibition of Sir James Murray & Son, whose name is so prominently associated with the well-known fluid magnesia. The firm do not by any means confine their attention exclusively to the manufacture of this preparation, by which they are best known, but also carry on a considerable trade in fluid camphor, acidulated syrups, and other pharmaceutical articles, and are, no doubt, in these branches by far the most important firm in Ireland.

Mr. Thomas Jennings, of Cork, who owns two separate stands, makes a speciality of the manufacture of vinegars, of which fine samples are shown, from ordinary brown to raspberry and spiced vinegars. The same firm also exhibit car-

bonate of magnesia in powder and block, and fluid magnesia. Messrs. McMaster, Hodgson & Co., of 121 & 122 Capel Street, Dublin, have a very tastefully-arranged stand. Their forte is in butter-colouring, sweet essence of rennet, to produce curds and whey, and similar preparations suitable for the dairy industry, which is so important a factor among Irish pursuits. They also exhibit a hair-restoring preparation, ornamented with a likeness of the Princess of Wales—which appears, to say the least, a doubtful compliment to H.R.H. The multi-coloured exhibit of Messrs. Harrington Brothers, chemical manufacturers, of Cork, contains a large variety of chemicals used in the glass, dyeing, and enamelling industries, and a good assortment of fine chemicals for laboratory purposes such as ammonium molybdate, succinic acid, &c. Messrs. Harrington Brothers' works were erected, only a few years ago, especially with a view to the manufacture of such chemicals as are now generally imported from Germany, and we are assured that they have no reason to regret their enterprise, as they have lately actually succeeding in underselling the Germans in their own market.

The chemical industry of Ireland is further represented by the Drogheda Chemical Manure Company, who place upon the market quite a different class of chemical preparations, such as West Indian, Canadian, and Spanish phosphates, Kainit sulphate of ammonia and sulphate of potash.

FAMILY MEDICINE CASES.

It will be recollected that the subject of one of our post-card competitions last year was cheap medicine cases, such as might be suitable for town families taking with them to the country on the annual summer holiday. The results of the competition were quite satisfactory, but the date of publication (the first week of August) prevented many carrying out, in a practical form, the ideas there given. Another summer season is now approaching, and it would be well for all those who think they will be able to do some business in this direction to be prepared for it. We therefore direct attention to the article which was published in our issue of August 7 of last year. Full particulars, with drawings, are given of the cases to which awards were given, as well as others of merit.

In connection with this subject we have received a communication from Mr. T. Maben (Hawick), in which he says:—"Having gone into the question of the family medicine case, *à la* post-card competition of last summer, I have adopted what appear to be the best suggestions, and brought out a case for myself. My results may be of some value to others, so I enclose the entire labels. I may say that I quite agree with you as regards the prize award, and Mr. Lawrence's ideas have in the main been made use of, with modifications suggested by the writer's own family experience.

The following are reproductions of four of the labels which are used for the bottles:—

ESSENCE OF SENNA.

*An agreeable and mild
aperient for children
and females.*

DOSE.

Children from 1 to 4 years,
one teaspoonful; from 4
to 7 years, two teaspoon-
fuls; from 7 to 14 years,
three teaspoonfuls.

Adults a tablespoonful.

(Name and address.)

ESSENCE OF CAMPHOR.

A saturated solution
of Camphor, known as
Rubini's Essence.

For Cold in the Head
or Diarrhoea, 5 drops on
a piece sugar every
half-hour.

May be used as an
application for Tooth-
ache and Neuralgia.

(Name and address.)

STOMACHIC POWDER.

Composed of
Gregory's Powder, Soda,
and Bismuth.

An admirable stom-
achic and antacid.

DOSE—10 to 20
grains occasionally.

(10 grains is as much as
lies on a sixpence without
heaping.)

(Name and address.)

QUININE.

Tonic, in cases of loss
of appetite and general
debility. DOSE—1 to
3 grains thrice daily.

As an anti-periodic
for Toothache, Neur-
algia, &c.: DOSE—3 to
6 grains every two
hours.

(3 grains is as much
as will lie on a six-
pence without heap-
ing.)

(Name and address.)

"The case is made of $\frac{3}{4}$ -in. white wood, stained mahogany; outside measurement, $7\frac{1}{2}$ in. deep by $6\frac{1}{2}$ in. by $5\frac{1}{2}$ in. The bottom is divided into compartments suitable for one dozen P. and L. stoppered bottles; a lift-off tray fits in over these, and there is a sliding lid. The cases cost (a quantity being taken) 1s. 6d. each; bottles, 2s. 3d. per dozen. So that, independent of drugs, the net cost may be roughly stated at 4s. This includes labels, which are all sized and varnished, both on case and bottles, for the purpose of better preservation. With unstoppered bottles the cost would be correspondingly smaller. The cost of remedies would amount, at retail prices, to 4s. or 5s.; but all the bottles are not filled. In addition to the contents of the bottles, the following are placed in the tray: Vaseline, menthol cone, chlorate of potash pellets, lint, cotton, and adhesive plaster. The case complete is advertised to sell at 10s. 6d., and the net profit on the transaction need not be less than 2s. 6d. or 3s. This of course does not adequately pay for trouble, but the refilling of the bottles may be expected to be of more or less frequent occurrence.

"The stomachic powder is prepared with ponderous magnesia; the diarrhoea mixture contains acid. sulph. arom. and dec. hæmatox. with syrup; and the cough mixture is the usual simple mixture for children."

For the inside of the lid there is a label 6 in. by $4\frac{1}{4}$ in., headed

COMMON AILMENTS

AND THEIR REMEDIES,

and containing the directions given by Mr. Lawrence, as printed in the article which has been mentioned. The label proper for the case is here reproduced:—

FAMILY MEDICINE CASE,

Containing a full supply of
REMEDIES FOR COMMON AILMENTS,

Together with suitable Directions and Doses.

(Name and address.)

A List of Common Ailments and their Remedies will be found
on the inside of this lid.

Chemists in country towns should have no difficulty in getting suitable boxes made for not more than 2s. 6d. each. They would be more convenient for carrying about if they were provided with a stout leather handle riveted to the lid with brass rivets. This would add to the elegance of the case, and would cost not more than 6d. We observe that Mr. S. Lawrence (Oban) has slightly improved and registered his design, and is now placing it upon the market.

EMBALMING, ANCIENT AND MODERN.

THE practice of post-mortem embalming is of very great antiquity, dating from at least 2,000 years B.C. It is generally supposed to have originated in Egypt, and appears to have extended by means of Egyptian colonisation into Persia, Arabia, and Ethiopia. It was also practised to some extent amongst the Jews, and through them succeeded in gaining a footing in the later Christian communities. Herodotus and Diodorus Siculus were the early historians of the art, and have transmitted to later times pretty nearly all the information we possess—at least as far as Egyptian embalming is concerned.

There are no reliable data as to the origin of the practice. Some have supposed that it arose owing to the difficulty of burial in a country which, for two months in the year, was subject to inundation, but the most probable explanation of the custom is to be found in the religious belief of the Egyptians in the immortality of the soul and its return to the body at some future time. Modern travellers over the deserts of Arabia and Africa have frequently described the finding of human bodies buried in the sand in a perfect state of preservation. In these cases no preparatory methods of embalming have been practised, putrefaction and decay having been indefinitely arrested simply by the desiccating action of the sand assisted by an atmosphere almost absolutely devoid of moisture, and it is very probable that artificial embalming was first suggested to the Egyptians in this way. This natural conservation of the dead was possible of course only in the arid sands and drier atmosphere of the deserts. By the banks of the Nile and in the humid districts of the Delta artificial means would be required, and one can easily imagine how a people so fertile in resource, and with whom the sentiment of immutability was a religion, would work upon the idea thus accidentally presented to them until, after possibly generations of failure, they were able, by artificial means, to rival the natural product of the peculiar desert atmosphere.

This method of preserving the dead by the agency of sand, at least as an accessory, became, in fact, one of the recognised forms of Egyptian embalming. Square vaults of about three fathoms in depth were constructed underground for this purpose. De la Vallée relates how he saw in one of these vaults the mummy of a young man clad in a long robe of richly-embroidered linen covered with hieroglyphics from head to foot, a crown of gold and precious stones on his head, his hair black and curled, the beard closely cut, a chain of fine gold, from which was suspended a medal bearing the impress of the sacred bird Ibis, encircled his neck, and other tokens of dignity, serving to show that he had been a person of great distinction, lay around. A basin of gold, filled with some red liquid, stood at his right hand, and in the left hand lay a fruit resembling an apple. The soles of his feet were covered with sandals, and a girdle encircled his waist upon which was embossed the word *Euteli*, or Blessed. On one side lay the figure of a woman, even more richly apparelled, and near to them a mummy without ornament, and prepared only with bitumen or asphalt.

But the most perfect form of Egyptian embalming was the one described at length by Herodotus. When the body was given up to the embalmers (in the case of females this was not until four days after death), the first operation was to remove the entrails, viscera, and membranes by an opening cut in the left side; these were thrown into the Nile; the brain was partly drawn down the nostrils by means of a bent iron instrument, and partly destroyed by the injection of some caustic liquid; the heart and kidneys were left in the body. The internal cavities were then thoroughly washed with palm wine, and afterwards filled with aloes, canella, myrrh, and other aromatics. The body was then sewn together and steeped for seventy days in natron. At the expiration of that time it was removed from the bath and washed with a liquid distilled from young cedars, swathed in bands of fine linen, which had been saturated with solution of myrrh, or cedar resin, placed in a coffin and reared upright against the walls of the dwelling. The cost of this process appears to have been adjusted to the social rank of the departed, and varied from one talent, or about 240*l.*, to less than half of that sum. A less expensive method, costing about 90*l.*, consisted in the injection of cedar oil. No in-

cision was made in this case, nor were the entrails removed. The body was then salted for seventy days. At the expiration of that time the oil was withdrawn, bringing with it the entrails in solution.

Three different persons appear to have been employed in making an embalment. A designer, whose office it was to trace the lines of dissection on the body; a dissector, by whom the operation of preparing the body was performed; and the embalmer proper. The lines of dissection were indicated by law, and the operation was performed with a sharply pointed instrument of Ethiopian stone.

Another mode of embalming, and one in vogue principally amongst the common people, was to impregnate the body thoroughly with asphalt or bitumen. This was occasionally performed by injection, but more commonly by plunging the entire body into a bath of the liquefied matter. The best asphalt was found on the shores of the Dead Sea, and it was either used alone or mixed with a certain proportion of pitch, under the name of *pisasphalte*. Mummies prepared in this manner have a black and shining appearance, very different from the olive colour of those preserved by means of vegetable aromatic substances.

In the grottoes of Thebes thousands of mummies are still to be seen. The mountain itself is honeycombed with caverns and sepulchral chambers, and specimens of every different method of embalming may be recognised. Here, as elsewhere, a large proportion have been preserved by asphalt. Griphius, a German chemist, who analysed many mummies at Breslau, is of opinion that this was the most usual agent employed by the Egyptian embalmers, and that only the bodies of the noble were preserved with the rarer aromatic substances.

Lucian asserts that it was not unusual for mummies to be pawned by impecunious relatives, and that no particular infamy attached to the practice. In the middle ages they were a frequent article of merchandise, and entered largely into pharmaceutical preparations. Pieces of mummy were commonly worn as charms so recently as the seventeenth century. Francis I. of France habitually wore one enclosed in a medallion. There has been considerable diversity of opinion as to the composition of natron. The older chemists, and amongst these Schröder and Etmuler, held that it was principally composed of salts of potash. Modern analysis has proved that the efflorescence sometimes found on the surface of mummies is due to salts of sodium, principally the carbonate and phosphate, and there can be no reasonable doubt that this efflorescence is due to the natron bath to which the bodies had been exposed. The cedria frequently mentioned by old writers on embalming was an exudation from the stem of the young cedar after the removal of the bark; an inferior quality was obtained by boiling the twigs and young branches. The oil of cedar was expressed from the fruit.

Until something like forty years ago European embalming differed but little in its essential characteristics from the processes already described as being common among the ancient Egyptians. In France and Italy, where the practice mostly prevailed, the first operation, when a body was placed in the embalmers' hands, consisted in making several small gashes in the soles of the feet to prove whether death had actually taken place. A long incision was then made from the upper part of the breast-bone, between the clavicles to the pubis. The breast-bone was raised to examine the parts of the chest, and that the cause of death might be investigated. All the inward parts most subject to putrefaction were then removed, and the internal cavities thoroughly cleansed and washed with spirit of wine and aromatic tinctures. These cavities were next filled with alternate layers of aromatic powders and cotton saturated with some liquid balm. In an exact description of the embalming of the Dauphiness of France, written by Dionis, who himself conducted the operation, the balm used is said to have been made up of the following substances:—Roots of Florentine iris, 3 lbs.; galangal, 1½ lb.; angelica, ginger, calamus aromaticus, aristolochia, 1 lb.; masterwort, gentian, valerian, of each ½ lb.; sage, savory, thyme, of each 1 lb.; hyssop, laurel, myrrh, marjoram, origanum, of each ½ lb.; leaves of citronella and basil, of each 1½ lb.; southernwood, absinth, mint, calamint, sweet rush, scordium, of each 4 oz.; orange flowers, 1½ lb.; lavender, 4 oz.; coriander, 2½ lbs.; cardamoms, 1 lb.; cumin and caraway, of each 4 oz.; juniper berries, 1 lb.; gillyflower, 1½ lb.;

nutmegs, 1 lb.; white pepper, 4 oz.; dried oranges, 3 lbs.; cedar wood, 3 lbs.; red sandal wood, 2 lbs.; orange peel, lemon peel, and cannella bark, of each $\frac{1}{2}$ lb.; storax, benzoin, olibanum, of each, $\frac{1}{2}$ lb.; myrrh, $2\frac{1}{2}$ lbs.; aloes, 4 lbs.; sandarac, $\frac{1}{2}$ lb.; spirit of wine, 4 pints; spirit of salt, 4 oz.; Venice turpentine, 3 lbs.; balsam of copaiva, $\frac{1}{2}$ lb.; balsam of Peru, 2 oz.; oilcloth, q. s.

In the more fleshy parts of the body and through the large arteries numerous deep incisions were made. These were cleansed and filled with aromatic powder, washed with spirit of wine, and afterwards sewn up. As each part of the body was finished it was bound up with fine linen bands, and washed over with solution of gum arabic. In this way the natural contour of the body was preserved and dissipation of the aromatic substances prevented. The heart was generally removed, and embalmed separately. It was opened by its two ventricles, washed several times with spirit of wine, and cleansed from blood and extraneous matter. It was then filled with aloes, myrrh, benzoin, and storax, washed with tincture of musk or oil of nutmeg, laid in perfumed cotton, and placed in a box by itself. During the embalming of the body the heart was steeped in turpentine or spirit of wine. The principal points of difference between this method and Egyptian embalming are, that in the European practice the natron bath has been entirely suppressed, and the body has been occasionally dried by artificial means. Rouyer, indeed, inclines to the belief that artificial means of a desiccating character were always used, but there is no mention of this in any old writer on the subject, and if it had been used in Egypt Herodotus would almost certainly have mentioned the fact. In the dry atmosphere of Egypt it could hardly be necessary, and probably it is as much due to this special fitness of climate as to any other cause that Egyptian embalming owes its acknowledged superiority.

Then again, the secret of the true balm has been lost. It may not, perhaps, have deserved the extravagant eulogies of old writers, but there can be no doubt that it was admirably fitted to meet the requirements of embalming in a climate like that of Egypt, and was far superior in every way to the barbarous imitations that were popular in Europe during the Middle Ages.

Early in the present century Professor Chaussier, of the Paris School of Medicine, recognised the importance of bichloride of mercury in the preservation of organic matter, and every subsequent method of embalming has had for its principle the combination of some chemical substance with the organic tissue of the body. Boudet, the pharmacist officially employed in embalming the senators of the first French Empire, used mercuric chloride in conjunction with tannin and other vegetable and astringent substances. The result was not very successful, as the mercuric chloride was only applied locally by means of incisions. So far as its influence extended, it effected all that could be desired, but local contact was decidedly insufficient and arterial injection was not at this time practised.

In 1834 Gannal, a French Pharmacist of the first class, practised embalming by means of the arterial injection of solutions of saltpetre and alum, and about the same time Dr. Tranchina, of Naples, published a method for the conservation of anatomical subjects by means of arsenious acid. A modification of these two processes was afterwards adopted by Gannal with great success. By the substitution of arsenic acid for arsenious he obtained a liquid richer in arsenic by reason of its greater solubility in water, and one which gave, in conjunction with sulphate of aluminium, results far in advance of anything hitherto achieved. Unfortunately this method had one fatal drawback. Its use in embalming was contrary to French law. About this time the antiseptic properties of chloride of zinc were attracting great attention in Paris, and it occurred to Dr. Sucquet that they might be successfully utilised in the practice of embalming. Orfila, a man of singularly broad views, and enthusiastically devoted to scientific inquiry, was at that time head of the School of Medicine in Paris. To him Sucquet applied, and every facility was at once granted him. A few days after he was installed in the Amphitheatre of Clamart and commenced those experiments which demonstrated the vast superiority of his method. Three subjects were placed at his disposal. The first attempt was a failure, owing to excessive concentration of his solution. The method employed was by injection in the carotid artery of solution of

chloride of zinc, marking 50° by Baumé's areometer. The density of the liquid was then lowered to 40°, and 14 pints of the solution injected in the carotid artery of a second subject, and this was accomplished without any accident. During thirteen months this body showed no sign of decomposition. These experiments formed the subject of a memoir addressed by Dr. Sucquet to the Academy, and a committee was formed, consisting of Orfila (president), Caventou, Blandin, and others, to report finally on the question of embalming. The principal methods brought under the notice of this committee were those of Gannal and Sucquet, already described, and that of Dr. Dupré, who proposed to effect the desired conservation by injections of sulphurous and carbonic acid gases. M. Gannal employed upon this occasion a liquid composed of equal parts of chloride and sulphate of aluminium, registering 34° Baumé's areometer. M. Sucquet used solution of chloride of zinc of the density indicated above. The requirements of this commission were exacting, and its investigations complete. It may be said shortly that solution of chloride of zinc, as employed by Dr. Sucquet, was declared to possess material advantages over M. Gannal's liquid, whose undoubted preservative qualities were proved to be due to the presence of arsenic, the use of which is interdicted in the French Code. A full report will be found in the "Journal de Chimie Médicale, de Pharmacie, et de Toxicologie," for December, 1845.

It will be observed that the principle of arterial injection was followed in each of these methods, and that they differed equally from the older practice in requiring no removal of organs nor mutilation of the body. They have also the advantages of cheapness and rapidity of execution. The publication of this report stimulated the practice of embalming amongst the Parisians, and Dr. Sucquet contends that many years' experience has confirmed the verdict of the Academy on the superiority of his method. In the last years of his practice he employed two distinct injections: one local, for the face and head, of ammoniacal sulphite coloured with carmine; the other general, for the body, composed of chloride of zinc of 40° Baumé. Since that time numerous other substances have been proposed for use in embalming, such as alkaline sulphites mixed with solution of gelatine, boracic acid, carbolic acid, and creasote, but the practice has gradually fallen into desuetude, and is at the present time almost entirely restricted to the preservation of local subjects for use in the schools of anatomy.

DISTILLING WATER AND EXTRACTING INFORMATION.—

At a recent provincial examination a candidate was asked to give the process for preparing distilled water. He began, "Take 10 gallons of water, and throw away the first eight." This is an example of the loose way in which too many students are apt to express themselves.

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MY soul—I mean the bit of phosphorus
That fills the place of what that was for us—
Can't bid its inward bores defiance
With the new nursery tales of science.

From Jas. Russell Lowell's latest poem in the
Atlantic Monthly.

THE CURRICULUM.—A London chemist has sent us a post-card of some years ago, which was sent to him from the office of the Pharmaceutical Society in reference to the

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It will be necessary for you
to produce a Declaration
and Certificate of Death on
presenting yourself for
Examination

Minor examination. We believe that he ultimately passed the examination without obtaining the curiously necessary certificate of death.

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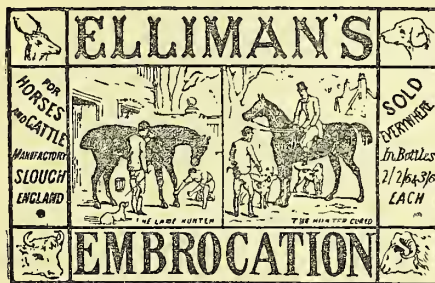
An analysis of the water having been made in November, 1886, by Professor Wanklyn, M.R.C.S., corresponding member of the Royal Bavarian Academy of Sciences, Professor of Chemistry, a very important discovery has been made, viz., the presence of Free or Elementary Iodine.

Dr. Wanklyn says—"So far as I am aware, this is the first instance in which free Iodine has been found in appreciable quantity in a natural water. For many years the Woodhall Spa has been celebrated as a valuable remedy in skin diseases. The fact that it is a solution of free Iodine is interesting in this connection, and well worthy of the attention of the medical profession."

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SEE ADVERTISEMENT, PAGE 29.



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See Advertisement, page 29.

EDITORIAL NOTES.

THE ANNUAL MEETING OF THE PHARMACEUTICAL SOCIETY.

THE breakdown of the Trade Association, and the consequent omission of its annual meeting, have left a marked void in our year's history, though we never pretended to think that its public meetings were valuable results of that organisation. The deliberate encouragement of the ventilation of grievances, which seemed to be a part of the policy of the executive of that body, was demoralising in its effect, but it had at least the merit of collecting from London and the provinces a little group of humourists who, with or without intention, added to the effervescence of the week. Many of these have stayed at home this year, and the Pharmaceutical meeting suffered in sympathy. The meeting at Bloomsbury Square on Wednesday was notable chiefly for one thing only, and that was the still growing ascendancy which Mr. Carteighe has acquired in the counsels of that body. We say still growing, but this is hardly correct; there is scarcely room for further development, as the President is at this moment almost absolutely autocrat of the Pharmaceutical Society and all its belongings. There is no breath of insurrection against his authority inside the Council, and there are not wanting signs that nothing but the most respectful expression of discontent or disagreement among the members outside will be tolerated ere long. No one doubts Mr. Carteighe's controversial or administrative ability; of the former he gave abundant evidence this week; of the latter we may, to use his own favourite expression, take his word for. Indirect testimony is afforded by the apparently voluntary effacement of themselves by all the other officers of the Council. The President answered each and every question submitted at the annual meeting, and in so complete, or in so suggestively incomplete, a manner as to indicate that he held all the manifold threads of the business between his fingers. This position has been acquired by

ardent zeal for the Society's interests, followed up by an immense expenditure of work. The Pharmaceutical Society is fortunate in having the benefit of such splendid services as Mr. Carteighe so heartily renders, and so long as he is willing to continue them is hardly likely to desire a change of head; but the members ought to insist on retaining one day out of three hundred and sixty-five for the opportunity of letting off any dissatisfaction they may have accumulated.

The vague desire on the part of many of the members that the Pharmaceutical Society should be of some use to its members in a trade sense found frequent expression when the report was discussed on Wednesday, but Mr. Carteighe very effectively disposed of any idea that the corporation is constructed for any such purposes as that of a trade protection society. At the same time he administered a well-deserved rebuke to the troublesome few—for they are few after all, comparatively, though like a stage army they make themselves appear a multitude by repeatedly marching in front of the scenes—who produce a new grievance every quarter of an hour, and are always wanting the assistance of the solicitor and of all the staff. The Council, however, are ready, it appears, to come forward nobly when any great occasion shall arise, when the interests of the craft generally are in danger. That statement, in view of actual facts, may be characterised as little more than rhetoric. Pharmacy has been invaded by a legalised limited company fraud, and the evil has been gradually growing for the past seven years. The Council have had official cognisance of this fact, for they themselves established it; and they have as a body practically ignored it. They are never likely to have a bigger or an uglier difficulty to deal with than that, and they have shown themselves afraid of it. To shield themselves behind the curriculum scheme, and to make that their *cheval de bataille* is a very thin expedient.

Very astonishing was the apathy of members in regard to the biggest scheme which the Society has ever launched, and which is not altogether unlikely to lead it to ruin. Members concerned themselves about an increase of 2s. on the purchase of books, and about the rent of some stables in Scotland, but the expenditure of at least 6,000*l.*, and probably 10,000*l.*, on a new building, involving as it must do a great increase of annual expenditure, passed without a comment.

Mr. Furness's motion, the object of which was to make Associates in business eligible for election on the Council, is a matter of internal policy in which we are not much interested; but it is obvious that if carried, and if it had any effect at all, it would be in the direction of lowering the character of the Council, a result which would be unfortunate for the trade generally. The Associates have votes for the Council, and therefore cannot be said to be unrepresented; and they can if they like qualify themselves for eligibility for the Council, so that it is difficult to see why Mr. Furness need have whipped his complaint into such a very large grievance. The point raised by Mr. Fletcher was a much more important one, though it was not, perhaps, much appreciated. It was not a question, which many seemed to imagine it to be, whether the present dispensing examination is or is not a satisfactory one. That is a matter of great importance, but it is one on which there is a general agreement. Very few people who know anything at all about it consider that the examination in dispensing as at present conducted is anything like an efficient one. Mr. Fletcher's question will help that subject forward, and will in that respect do service. But his special point was whether the Board of Examiners are justified in delegating, as they do by the admitted practice, to one individual in their body the authority to grant or refuse certificates of competence entrusted to them corporately. This practice, com-

bined with the inefficient dispensing examination already alluded to, does work great injustice, and it was noticed that the President carefully avoided committing himself to the statement that it is legal. However that may be, there can scarcely be two opinions about the illegality of the closure which he applied when the opinion of the meeting in reference, to the practice was brought forward as a substantive resolution. Mr. Carteighe said it was quite out of order, and in an undertone he unfortunately (for himself) added his reason. The meeting was not competent, he said, to regulate the examinations. No one asked the meeting to do so; it was asked to express its opinion about a practice which it seems is not even a regulation, and it was just as competent to do that as it was to express views on the Pharmacy Bill or any other subject.

THE APOTHECARIES TRIUMPHANT.

LAST week the General Medical Council held one of its sessions, which are conducted at a cost of 22s. per minute. The special business which had brought the members together was an application by the Apothecaries' Society for the appointment of examiners to complete their requirements as a qualifying body. Before that business was reached Sir Henry Acland delivered a graceful opening address, in which special reference was made to the business of the session, and to the fact that this was his last duty as President of the Council. An address to the Queen was moved, and in supporting it Sir William Gull said that Her Majesty had "special claims on the medical profession, to which she had ever been thoroughly loyal, never countenancing quackery or anything leaning towards irregular practice." The address was a brief record of the advance in medical science during the past fifty years, and was unanimously agreed to. Subsequently, in committee, Mr. John Marshall, F.R.S., was unanimously elected President of the Council. Mr. Marshall is the representative of the Royal College of Surgeons, England, of which he was for some years president. He fills the Surgery Chair of University College, and is one of our most eminent surgeons.

The real business of the meeting was then introduced by Mr. Brudenell Carter, the representative of the Society of Apothecaries, who moved—

That in pursuance of the application made to the General Medical Council by the Society of Apothecaries of London, by letter dated April 12, 1887, for the appointment of assistant examiners to the Society under the provisions of the Medical Act of 1886, the Council hereby consent to appoint assistant examiners accordingly.

The third clause of the new Medical Act provides that any medical corporation which has the power of granting a diploma in one or two of the three subjects in which qualification is required previous to registration may combine with a second corporation which grants a diploma in the third subject. The Apothecaries' Society cannot grant a diploma in surgery, and it therefore desired union with the Royal Colleges of Physicians and Surgeons, but to this the other corporations would not consent.

Sir Dyce Duckworth, who spoke for the College of Physicians, contended that the standard of the apothecaries was not that of medical practitioners proper, and that apothecaries were no longer wanted. They had done their work well, but the need for them had passed away. The work which they had done at one time was now much better done by the trained and examined members of the Pharmaceutical Society.

The representative of the College of Surgeons being in the chair, the case of that body was not submitted; but it was

evident from the tone of Sir Dyce Duckworth's remarks that it was intended simply to snuff out the apothecaries altogether. This decision was all that was necessary to empower the Medical Council to exercise the function imposed upon them by the fifth clause of the Act—viz. that if one corporation failed to unite with another, the Council should be authorised to appoint examiners to complete the number for a qualifying examination. It was mentioned in the course of the discussion that this clause was introduced into the Act in anticipation of such a position as had occurred; and that if the Council refused to appoint examiners, the apothecaries could appeal to the Privy Council, which would not hesitate to enforce the intentions of the Act.

The Council took nearly four days to discuss the matter. There was much nonsense spoken in the course of debate, and an under-current of professional jealousy, which is so characteristic of medical men, occasionally manifested itself to a degree more than pleasant. Dr. Struthers (Aberdeen) moved an amendment to Mr. Carter's motion, and in the course of a speech which cost the medical profession 100*l.* argued that the apothecary was a combination of a drug-seller and a practitioner, that this system was the soil of quackery, and had been the hot-bed of homœopathy. In Scotland homœopathy had not flourished; in England it had, and that was owing to the existence of the Apothecaries' Society. He went on to argue that this society, being a trading body, was unfit for professional recognition, and in support of this contention caused some amusement by handing to the President a tincture and a powder, which he had bought at the Apothecaries' Hall. Dr. Quain could not tolerate this kind of argument and waste of time, and protested against it, when Dr. Struthers capped his performance by producing a bottle of eau de Cologne, purchased at the Hall, as a proof that the Society was not simply actuated by the desire to keep up the quality of drugs, but traded for profit. Sir Walter Foster very neatly replied to this attack by a defence of honest shopkeeping as a respectable occupation, and then proceeded to state reasons for the maintenance of the Society. His strong argument was that licentiates of the Hall would meet the demand for cheap medical advice. He said that "in this country there was a steadily increasing pressure among the poor to obtain medical advice, and there were growing up in towns, to their great scandal, a large number of so-called 'penny dispensaries.' Many poor people had no other resource than the chemist's shop, or one of the cheap dispensaries or hospitals. That was all due to the fact that the profession had, during the last few years, entered on a course which was valuable to the profession in some senses, but a little hurtful to the public; it was getting a little above the work it used to do. If they refused to allow the Apothecaries' Society to have examiners, and the Privy Council backed them up in their refusal, there would grow up another kind of practitioner. The pharmacists of the future were to enter upon a course of study more or less framed in imitation of the medical curriculum. The course of lectures on *materia medica* would no doubt include a great deal more than the mere knowledge of the physical and chemical properties of drugs; and when a man had acquired that knowledge, it would be difficult for him not to apply it, and endeavour to get legal sanction for the application. It could not be denied that there were hundreds and thousands of cases occurring daily in the metropolis which were prescribed for by chemists over the counter, and that practice must go on unless they found some means of giving to the public medical aid, which would do away with the necessity of going to persons who were not properly qualified."

The "counter practice" bogey did not, however, pass un-

challenged. Dr. Duncan met it very sensibly when he said "reference had been made to medical practice over the counter for poor people, which it was said was a very dreadful thing. He did not think so. It was useless to attempt to put the poor man on a level with the rich. For a cut finger or a trifling sore-throat, and many of the ills for which medical men received their guineas, over-the-counter practice did very well."

Between those who argue for putting down counter prescribing and those of Sir William Gull's opinions, chemists would certainly have a poor time of it. Sir W. Gull contended that "it was not desirable to have a Society of Apothecaries at all, and that its existence was contrary to the interests of medicine. People, he said, did not get well by drugs. When the Prince of Wales was ill of typhoid fever, how many doses of medicine did he take? Not four. The question was whether the profession should be set free from the trammels of the past. Medicine was once given even for fractures. It was the powers of nature that effected a cure of disease, and the duty of the medical man was not to give drugs, but to see that nature's powers were not interfered with."

This sounds like curing by faith. After the members had exhausted themselves, a division was taken on Dr. Struthers's amendment, which was lost, and it was ultimately agreed to give the Society the powers asked. The result is that the Apothecaries' Society becomes a more powerful body than it has ever been; its examiners will be appointed by, and the examinations supervised by, the General Medical Council, and the diploma will thus have a prestige which no one ever expected it would have. May we hope that in the near future the Society will make an effort to get rid of the antiquated powers which it can exercise against chemists? Such a regenerated body should rid itself of all that savours of the sanitary inspector and the policeman.

WILL CAMPHOR ADVANCE?

AT the commencement of the summer the price of camphor usually advances in sympathy with increased consumption, but during the last ten years there have been numerous exceptions to this rule, which now again seems likely to be honoured in the breach rather than the observance.

Theoretically, of course, the price of camphor should be ruled by the production of the crude material and the demand for the refined article, and in the long run these factors undoubtedly do exercise their natural influences, but circumstances frequently combine to render the natural law inoperative for a time. In the first place the annual production of camphor in Japan and Formosa is liable to violent fluctuations; next, the article is one which for years has exercised a considerable attraction upon speculators, who frequently control the bulk of the stock in the principal markets; and, thirdly, the keen competition among camphor-refiners in Europe and America generally causes the refined article to be obtainable at much lower rates than the price and the statistical position of the crude product would seem to warrant.

America is perhaps the largest purchaser of crude camphor. Of the quantity consigned to Europe, London receives the largest share, Hamburg, where there are several refineries, being second in importance. The drug is also consumed in very large quantities in British India and in China; but the Chinese prefer the Baros camphor of Sumatra and Borneo, a variety never seen in European commerce, and for which as much as 10*l.* per lb. is said to be paid by them. In 1886 Europe, it is stated, received 13,998 piculs (1 picul =

133½ lbs.) camphor from Japan, 13,965 piculs went to America, and 8,669 piculs to India and other Eastern countries. At the commencement of the present month the total stock of camphor in first hand in the London warehouses numbered 4,572 packages, which is below the average of the corresponding dates of the last few years, but considerable quantities are expected to arrive during the ensuing season. The present price of crude Japanese camphor may be put at 65s. to 66s. per cwt., which is as low a point as has been reached since the summer of 1885, when a sudden speculative movement drove up the quotations from 58s. to 85s. per cwt. In 1883 and 1884 the prices ranged between 50s. and 60s., as a result of the excessive production of the crude article, which even the increased demand on account of the cholera epidemic then visiting Southern Europe could not assimilate. The highest values attained in recent times occurred at the end of 1879, when, on account of successful speculative movements, 110s. was quoted in London for Japanese camphor.

The refined article is usually prepared from the crude product by sublimation *per se* or from sand or quicklime, and the price of refined camphor has generally been too low lately to leave any great profit to the refiners. English refined camphor, by reason of its greater purity, always commands a higher value than the Continental product, which is frequently contaminated with artificial or turpentine camphor, and in Germany competition among the refiners is said to have been particularly keen, though latterly some sort of understanding has apparently been arrived at between them. Formerly nearly all the crude camphor was shipped to Amsterdam to be refined, but that city has now lost its supremacy in this respect. The area of distribution of the *Cinnamomum Camphora* is an extensive one, including not only the greater part of China proper, especially the south-eastern and eastern littoral, but also the islands of Hainan and Formosa, and the southern part of Japan to about 36° northern latitude. But it may be taken for granted that very little, if any, of the camphor produced on the Chinese mainland is ever exported; in fact, there are reasons to believe that the trees have been exterminated in many provinces, and that the Chinese may ere long themselves be entirely dependent upon the foreign article for their home consumption. On the island of Hainan the camphor industry is of very little importance, and, from a commercial point of view, Formosa and Japan are therefore the only countries which need be taken into account when reviewing the probable future of the article. The Formosa camphor, which is greyer in colour and generally damper than the Japanese variety, reaches our markets in cases of about 1 cwt., and its price is on an average from 2s. to 2s. 6d. per cwt., or say about 4 per cent., below that of the Japanese camphor.

The island of Formosa, nominally tributary to China, is inhabited by one of the most savage races on the face of the globe. Various attempts on the part of European nations to obtain a hold on the island have failed, but of late the Chinese have been making a determined and apparently successful attempt to subjugate the country by the practical though by no means easy expedient of exterminating the aborigines by fire and sword. Bands of Chinese from time to time make an excursion into the interior in order to collect camphor (for along the littoral the trees are all but exterminated) and carry the crudely-distilled article to Tamsui, the principal port of the island, where it is packed in tubs and shipped mostly to Hong Kong. Upon its arrival at that port it is repacked into cases and distributed to Europe, America, and various Asian countries.

It appears that formerly some sort of rough control was exercised over the camphor-distilling parties by requiring the

collectors to take out a Government licence. Quite recently, it seems, camphor-distilling has been made a Government monopoly by the Chinese authorities, who are governing the island; and, since the Chinese invasion has been crowned with success, the exports of camphor, which in 1884 and 1885 had dwindled to next to nothing, have again assumed very much larger proportions.

The mountains in the interior of Formosa, especially in the Northern part of the island, are still covered with camphor trees, but these are ruthlessly destroyed as the Chinese invasion progresses, and their place is taken by other cultures, such as tea and indigo, which yield a much quicker return. The total extinction of the camphor-laurels in Formosa is therefore, to all appearances, a question of, perhaps, not more than twelve or fifteen years, at the end of which period the Chinese camphor of our markets may have become a thing of the past.

Statistical information concerning the exportation of camphor from Formosa is published occasionally, but the figures given in different reports seldom agree. The average yearly shipments from the island may, however, be set down at about 11,300 piculs. In 1882 and 1883 the exports fell to one-half of the usual quantity, and in 1884 and 1885, partly on account of the political differences between France and China, and partly because of the increased restlessness of the aborigines, they ceased almost entirely. Last year the shipments again assumed normal proportions.

The probable future of the camphor industry in Japan is to some extent a matter of conjecture, as it is difficult to obtain entirely reliable data; but a careful comparison of the information vouchsafed by the most trustworthy sources favours the assumption that in this country also the destruction of camphor laurels has, for some time at least, been proceeding at a much faster pace than the raising of new trees.

Japanese camphor, the variety most esteemed of those known to European commerce, has a peculiar sassafras odour, is larger grained and of a paler or more pinkish tint than Formosa camphor, and it now occupies the leading position on our markets. It arrives here in wooden tubs weighing about 1 cwt., and is principally imported *via* Hiogo, smaller quantities reaching us *via* Osaka, Yokohama, and Nagasaki. The same discrepancy in the export figures occurs in the different Japanese statistics as is the case with Formosa.

The following figures (expressing number of piculs) are derived from a source generally considered reliable, but we are inclined to believe that in some cases the Hiogo exports alone are made to do duty for those from all the Japanese ports together:—

1879	1880	1881	1882	1883	1884	1885	1886
25,044	18,861	23,714	33,934	33,241	30,365	21,199	36,632

It will thus be seen that Japan now yields about three or four times as much camphor as Formosa. The Japanese provinces of Tosa and Satsuma are the centres of the camphor industry. The product distilled there is taken to the capital of Tosa and shipped to Osaka, where it passes into the hands of European dealers, who export it *via* Hiogo. Large quantities are also obtained in Kin Sin, the southernmost island of Japan, and brought into commerce partly *via* Nagasaki, the only port on that island, and partly *via* Shanghai and Hong Kong, to which ports the camphor is conveyed by native craft.

The process of distilling camphor as carried on in Japan is of an extremely simple character. The collectors choose the oldest trees, which are generally the richest, and having cut one down, proceed to lop off the branches. The whole is then cut into chips and put in a wooden tub with a false bottom, placed over an iron pan filled with water and heated

by means of a stove. The vapour of the boiling water passes through the tub, carrying with it the camphor from the chips through a bamboo tube to the cooling apparatus, where, upon being passed in a zig-zag direction through vertical layers of rice straw, it condenses, along with its by-product, the camphor oil. This oil is generally put through a further process of distillation, whereby more camphor is obtained, and exported to Europe, but large quantities of it are also consumed in the country, principally in the preparation of varnishes.

In Japan the camphor trees are mostly owned by the Government, who employ the wood in shipbuilding. Formerly there were also extensive plantations in the hands of private owners, but at present these plantations are almost extinct. It is said that at one time the Japanese law required a new camphor tree to be planted wherever an old one was destroyed, but that this practice has now become obsolete. Reports have obtained currency lately that large tracts of trees owned by the Japanese Government had been cut down, and perhaps the anxiety to strengthen the maritime resources of the country may account for the largely increased production of camphor during the last five or six years. Speculative movements apart, there is, perhaps, no reason to expect any important advance in the price of camphor for some years to come; in fact, it seems quite within the range of possibility that the over-production of the crude product at present existing, is destined to assume still larger proportions in the near future; but it is not unreasonable to suppose that this period of abundant supply will be followed by one of extreme and continued scarcity, unless steps are taken to propagate the camphor trees on an extensive scale in countries other than those which now supply our requirements.

The camphor laurel thrives best in certain tropical and semi-tropical districts, possessing a dry soil and a moist atmosphere, such as is found on many mountain-slopes. In Japan the tree is able to bear the hardest winters, during which occasionally as many as eighty or ninety frost-nights occur, the temperature sometimes falling to 90° Cent. below zero. The propagation of the tree is very easy. The seeds can be planted in garden soil after the manner of peas, and by next season will have attained a height of about 2 feet. They may then be permanently transplanted with the care required by evergreen trees. In California and the Southern States of America camphor trees flourish very well, but they have not hitherto been cultivated there for commercial purposes. In Europe the tree flourishes in certain parts of Italy.

The position of camphor at the present moment may be summed up as follows:—A comparatively favourable statistical position, coupled with an absence of demand on the part of the refiners, who appear well supplied. A firm tone rules for the refined product, which is comparatively cheap, but there is less demand on the part of consumers than might have been expected at the present time of the year. There are prospects of considerable shipments from the producing countries for some time to come, but of a dearth in the exports at no very distant date.

There seems very little chance that the consumption of camphor, either for medicinal purposes or as a preservative of clothes, will at all diminish, no efficient substitutes for the drug having hitherto been discovered. Naphthalin has, indeed, been named as a probable competitor of camphor in some departments, but it does not seem likely ever to become a dangerous rival.

A Pharmaceutical Exhibition. An International Exhibition of Chemicals and Pharmaceuticals is to be held at Brussels in 1888. It will form a part of the 35th "Grand Concours International des Sciences et de l'Industrie." For the first time pharmacy is to have a place

by itself. The following objects will be admitted:—Laboratory apparatus of all sorts, modern or antique; shop furniture and appliances; dispensing utensils and sundries; products of vegetable, animal, and mineral origin; galenical preparations; scientific collections pertaining to pharmacy; herbaria; periodical publications; pocket and ship pharmacies, homœopathic pharmacies, &c. Suitable prizes will be awarded. Further particulars may be obtained by addressing M. Victor Reding, Secrétaire général, 13 Rue de la Science, Bruxelles.

* *

Apothecaries' Weights. Our report last week of the prosecution of a chemist under the Weights and Measures Act is amusing, to say the least of it. A chemist was charged with having two $\frac{1}{4}$ -lb. weights in his possession, one of which was 9 drachms light and the other half a drachm light. One of the weights was unstamped. The defendant claimed that he as a chemist was allowed to sell drugs by apothecaries' weight, and he seems to have argued that $\frac{1}{4}$ -lb. apothecaries' weight ought to be lighter than $\frac{1}{4}$ -lb. avoirdupois. That is quite true; but it does not explain the varying quarter-pounds, nor does it relieve the chemist from the burden of having his weights stamped. The inspector admitted he had had no experience in apothecaries' weights, and seemed quite unable to answer his opponent, but he gave him a vigorous help forward by the remark that the defendant "sold other things than drugs, such as salts and senna." The magistrates gave the defendant the benefit of the general muddle, and dismissed the summons against him, but forthwith fined a grocer 2s. 6d. and costs for having an unstamped weight in his possession.

* *

Gun Cotton Unexpected. In the annual report of the Chief Inspector of Factories and Workshops, in referring to accidents, mention is made of a special danger occurring in an apparently safe quarter. It happens in the process of extracting wool from old fabrics. Where the fabric is of wool alone, it can be torn up and re-made with ease; but, where cotton has entered into the composition of the original stuff, the cotton must be got rid of before the old cloth can be re-made into new. This is done by subjecting the rags to the action of an acid which destroys the cotton while it leaves the wool almost uninjured. But this process is found sometimes to result in explosions, the force and effect of which vary very much. The fact seems to be that the workman has, without knowing it, been engaged in manufacturing something very like gun-cotton and of similar explosive power. When this substance has been ignited, as it frequently is, an explosion has been the matter-of-course result. The report mentions several instances of deaths and severe accidents from this cause, and it adds that minor explosions, by which men are more or less burnt, are of constant occurrence.

* *

Lime-water. Mr. J. A. Wanklyn communicates a note (*Chem. News*) on a peculiarity of lime-water which appears to him to be of great interest. According to a recent determination in his laboratory, "a litre of lime-water contains 1.344 grm. of CaO, and the specific gravity of the lime-water reaches the extraordinary figure 1002.35, compared with distilled water at the same temperature, reckoned as 1000.00 (the temperature was 13° C.). It follows from these observations that in the formation of lime-water a most extraordinary contraction takes place.

"Before solution:—

CaO	0.5 c.c. =	1.344 grm.
H ₂ O	10.1 " =	100.0 "

which contract so as to occupy one litre. The contraction is therefore, three times the volume of the lime which dissolves in the water and forms lime-water." It should be noted that the lime exists in aqueous solution, not as calcium oxide (CaO), but as calcium hydrate (CaH₂O₂), and that 1.344 grm. of the former is equal to 1.758 grm. of the latter. The contraction is, therefore, not so great as Mr. Wanklyn states.

Industrial
Statistics
of India.

The Indian Government have recently issued an important collection of statistics relating to the material progress and condition of the country. The *Tropical Agriculturist* comments upon some of these statistics, especially those relating to cinchona cultivation, which are very interesting, and show the large interest which the Indian Government have in this industry. The two Government plantations—in Sikkim and in the Nilgiris—cover an area of 3,214 acres under cultivation. There is a small plantation in British Burmah, but the area is not given. The Sikkim concern had in March, 1886, a little over 5 million trees planted out, with 370,000 seedlings and rooted cuttings, which yielded 205,410 lbs. of bark in 1885-86. This, added to the stock on hand, made a total of 415,131 lbs. available for manufacture during the year. Out of this 4,625 lbs. of febrifuge were produced. Most trees on the Sikkim plantation belong to the *Succirubra* variety; but the more valuable *Calisaya Ledgerianus* are gradually taking the place of the former. The Nilgiri plantations cover an area of 847 acres, planted out with nearly 2,000,000 trees, mostly *C. officinalis*. The outturn of bark during the year 1885-86 amounted to 113,306 lbs., of which 111,040 lbs. were sold by auction at Madras. The information regarding private plantations is not quite complete, but they may be taken to cover an area of 7,204 acres, of which more than half is on the Nilgiris; Coorg, Bengal, and Mysore coming next in order. The whole represents 10,269,047 plants, which yielded 268,479 lbs. of bark in 1885-86.

* *

Opium-
growing in
America.

A Florida journal of recent date contains a glowing account of the projected cultivation of the poppy on the Indian River in that State by a syndicate of English capitalists. The work of securing ground, planting, and gathering has been entrusted to a member of the medical profession who is credited with having had a wide experience in the production of opium in Asia, and is also said to have cultivated the drug in Massachusetts, New York, Illinois, Iowa, Minnesota, and Florida, "but not profitably." The high cost of labour in the United States has been the chief obstacle, it is said, to the successful cultivation of the plant, all other conditions appearing to be favourable. This disadvantage the promoter of the opium-growing company intends to balance by a secret process of preparation, which will enable American opium to undersell the produce of any other country, as completely as the famous artificial quinine was to drive the cinchona product off the markets of the world. "The cultivation by the doctor's method is so perfect that sixteen plants can be made to produce an ounce of opium;" and as in the Indian River district of Florida the poppy will grow and ripen every month of the year, the Asian poppy may literally hide its diminished head. The reason that Florida is chosen as the field for production is that experiments in that and the other States mentioned prove that the poppy plant grows best there, producing larger capsules. Happy shareholders! Clever doctor!

* *

Chemists
and the
Stores.

The *Medical Press* of May 18, in commenting on the Brighton memorial which appeared in THE CHEMIST AND DRUGGIST, says:—"This memorial is supported by several of the leading local practitioners, *inter alios* by Dr. Withers Moore, the President of the British Medical Association, and deserves, as we think, the hearty endorsement of the whole profession. When we consider the dangerous properties of many of the drugs that are now daily prescribed we have no difficulty in arriving at the conclusion that, if there is any art or mystery that calls for a careful culture or training it is emphatically that of the dispensing chemist; and as the compounding of drugs at "Stores" has been more than once unpleasantly called in question, we think this petition has not been presented too soon for consideration. There is no present chance of obtaining any improvement in the terms of the Pharmacy Act of 1868; yet we think that these tradesmen should not be discouraged by the existing Parliamentary block, but that they should persevere, and by every available legal means endeavour to enforce their rights, and so enable them to recoup themselves for the outlay their education has entailed on them, and maintain at the same time their status and families."

The
Benevolent
Fund.

It will be noticed—and, we suppose, with regret—that the decennial whip for the Benevolent Fund has brought in a sum 500*l.* less than was raised in 1877. This is a great pity. The fund is doing more and better service than it ever did before. It provides a small but fixed income for nearly fifty deserving annuitants, and gives substantial relief to scores of other applicants—all associated with pharmacy—during each year. The committee who manage it go to the extreme limits of prudence in the courage with which they trust to annual subscriptions. The annuities which they have contracted to pay are not half provided for by the interest on invested capital. So that, as Mr. Carteighe urged on Tuesday evening, a widely-extended subscription list is the most essential safeguard of this fund. But at this sufficiently long interval, when a special effort is made to increase the investments, it might have been hoped that at least as substantial an addition would have been made to them as was done last decade. From information which has reached us, we cannot assume that the retrograde movement is entirely due to the bad state of trade, to the Jubilee, or even to the alleged unpopularity of the Pharmaceutical Council, who administer the fund. It is likely the cause might be found to some extent nearer home. There is reason to believe that one day's personal canvass in the City of London would have made some hundreds of pounds difference to the result.

* *

What are The "Instructions" to excise officers referred Patent to in the report of the Dover Chemists' Association? Med- tion do not seem to us to indicate any new cines? departure on the part of the Board of Inland Revenue. We are told that the subjoined is "very nearly" the wording of the document alluded to:—

"A medical preparation cannot be sold unstamped without involving liability to penalty, unless care has been taken to avoid any expression or phraseology which can be construed as representing—

"(1) That the preparation of the medicine is a secret, or that the medicine is a speciality of any person, or that it is made in conformity with any special receipt. For instance such fancy names as 'The City of Liverpool Cough Lozenges,' 'St. Mark's Linctus,' 'Mephisto Corn Paint,' &c., must be avoided.

"(2) That it is the preparation of any particular person, or that anyone has a proprietary right in its manufacture or sale, for example, 'Smith's Liver Pill,' 'Neuralgic Tincture prepared only by Jones.'

"(3) That it will prevent cure or give relief in any disorder. "All such expressions must not only have been avoided on the label itself, but also in all references to the medicine, whether on the label, wrapper, or cover, or in any printed or manuscript matter whatever, including newspapers, handbills, posters, show-cards, advertisements, almanacs, lists, &c., inasmuch as although the labels *per se* may not render the preparations to which they relate liable to duty, the preparations may be made so liable by the publication of other printed or written matter. Labels sent to Somerset House, therefore, for the opinion of the Board, must always be accompanied by all the printed or manuscript matter which relates to the particular preparation in question.

"It is well established that where any such expressions as aforesaid have been so used at any time before sale the medicine is thereby rendered liable to stamp duty, even though the actual label on the package is entirely innocent."

The words italicised in the last paragraph are those which have especially caught the fancy of the Dover chemists. They do look a little alarming it is true, but they express the law, and it is difficult to see how the conditions could be altered if the tax is to be retained at all. But there is no reason to suppose that the Board of Inland Revenue will act in utter disregard of common sense or fairness in this respect.

THE directors of the Milbay Soap, Alkali, and Soda Company (Limited), at their thirty-first annual meeting, just held, have declared a dividend of 5 per cent., amounting to 2,300*l.*, writing off from the plant 300*l.*, and carrying forward 123*l.* to the next account.

THE BENEVOLENT FUND FOR THE RELIEF OF DISTRESSED CHEMISTS AND DRUGGISTS AND THEIR FAMILIES.

THE following list of donations and annual subscriptions was read by Mr. Richard Bremridge at the dinner on Tuesday evening:—

	Donations		Annual Subscriptions		Donations		Annual Subscriptions	
	£	s. d.	£	s. d.	£	s. d.	£	s. d.
Abram, A. C., Bold Street, Liverpool..	..	1 1 0	..	..	Collier, Henry, Guy's Hospital, S.E.	..	2 2 0	..
Alexander, Wm., 2 Manor Road, Twickenham	0 5 0	..	Constance, Edward, 65 Charing Cross, S.W.	..	1 1 0	..
Alden, John, 156 Cromwell Road, S.W.	..	2 2 0	..	..	Cooper, Albert, 80 Gloucester Road, South Kensington	10	10 0	..
Allen, C. B., 20 High Road, Kilburn	5 5 0	1 1 0	..	Corder, Octavius, 31 London Street, Norwich ..	..	2 2 0	..
Allen & Hanburys, Plough Court, Lombard Street	..	10 10 0	..	..	Cowles, Charles, 1 West Ham Lane, Stratford ..	..	1 1 0	..
Anning, A., 34 Week Street, Maidstone..	0 5 0	..	Cownley, A. J., 13 Fenchurch Avenue, E.C.	..	1 1 0	..
Anonymous	1 0 0	..	..	Cox, Arthur H., 35 Wellington Villas, Brighton	..	10 10 0	..
Arkinstall, Wm., 35 Gloucester Road, S.W.	..	2 2 0	..	..	Cracknell, H., 17 Craven Road, W.	..	1 1 0	..
Atkins, S. R., Market Place, Salisbury	3 3 0	..	..	Cracknell, H. W., 17 Craven Road, W.	..	1 1 0	..
Attfield, Professor, Ashlands, Watford	4 4 0	..	..	Cripps, Johnson, Reepham, Norwich ..	..	..	0 5 6
Ault, John, Fernilee, near Stockport	1 1 0	..	..	Cross, W. G., Mardol, Shrewsbury ..	..	..	2 2 0
Baldon, H. B., 73 Princes Street, Edinburgh	5 5 0	..	..	Darby, S., 140 Leadenhall Street, E.C.	..	5 5 0	..
Baines, W. H., 5 Coleman Street, E.C.	..	1 1 0	..	..	Davenport, Horace, 33 Gt. Russell Street, W.C.	..	10 10 0	..
Baiss Bros. & Co., 4 Jewry Street, E.C.	..	10 10 0	..	..	Davenport, J. T., 33 Gt. Russell Street, W.C.	..	10 10 0	..
Barclay & Sons, 95 Farringdon Street, E.C.	..	10 10 0	..	..	Davy, Yates & Routledge, 64 Park Street, Southwark	..	5 5 0	2 2 0
Barnard, John, 225 Oxford Street, W.	..	5 5 0	..	..	Dinneford & Co., 180 New Bond Street, W.	..	10 10 0	..
Barnes, J. Benjm., 1 Trevor Terrace, Knightsbridge	..	3 3 0	..	..	Dodd, W. R., 2 St. Andrew's Pavement, Amhurst Park	..	1 1 0	..
Barnes, J. Burden, 1 Trevor Terrace, Knightsbridge	..	0 10 6	..	..	Down, Dr. J. Langdon, 81 Harley Street, W.	..	5 5 0	..
Barron, Fredk., Bush Lane, Cannon Street, E.C.	..	10 10 0	..	..	Dyster, W. B., 35 Gloucester Road, South Kensington	..	2 2 0	..
Bascombe, Fredk., 3 Grand Promenade, Brixton, S.W.	..	1 1 0	..	..	Elliman, Sous & Co., Slough ..	..	5 5 0	2 2 0
Bate, H., 125 South Lambeth Road, S.W.	..	2 2 0	..	..	Elliott, George, 50 Park Street, Walsall ..	..	1 1 0	..
Bathe, F. J., High Road, Chiswick	0 10 6	..	Elliott, John D., 3 Orchard Place, Woolwich Road, S.E.	..	..	0 10 6
Beal, E. J., Ilford, E.	..	1 1 0	..	1 1 0	Emsley, J., High Street, Stoke Newington ..	..	1 1 0	..
Beckett, L., 32 Aberdeen Road, Highbury New Park, N.	..	0 5 0	..	..	Evans, John, Temple Gate, Bristol ..	..	0 10 6	..
Beddard, John, 46 Churton Street, Pimlico, S.W.	..	1 1 0	..	..	Evans, Lescher & Webb, 60 Bartholomew Close, E.C.	..	10 10 0	..
Bell, C. B., 6 Spring Bank, Hail	2 2 0	..	..	Evershed, G. S., 163 New Kent Road, S.E.	..	0 10 6	..
Benger, F. B., 7 Exchange Street, Manchester	..	21 0 0	..	..	Everson, H. C., 16 Cross Street, Hatton Garden, E.C.	..	0 10 6	..
Bennett, George, 8 Filley Crescent, Grove Lane, Stamford Hill	0 10 6	..	..	Farnsworth, Tbos., Codnor, near Derby..	..	0 5 0	..
Bentley, Professor, 38 Penywern Road, Earl's Court	2 2 0	..	..	Field, H. E., 70 Orton Road, Birkenhead ..	..	..	0 5 0
Bindloss, G. F., 97 Leighton Road, Kentish Town, N.W.	..	1 1 0	..	..	Fitch, R. O., 255 Well Street, South Hackney ..	..	5 5 0	..
Bird, Augustus, Wood Lane, Shepherd's Bush, W.	..	5 5 0	..	..	Fletcher, John, Montpellier Avenue, Cheltenham	..	2 2 0	..
Bird & Storey, 42 Castle Street East, W.	..	5 5 0	..	..	Flux, Son & Co., 3 East India Avenue, E.C.	..	10 10 0	..
Birkett, John, 16 The Crescent, Morecambe	1 1 0	..	..	Forbes, James W., 65 Newport Street, Bolton ..	..	0 10 6	..
Bishop, Robert, Eye, Suffolk	1 1 0	..	..	Foster, F. H., 2 Bank of England Place, Plymouth	..	..	0 10 0
Blake, C. A., 47 Piccadilly, W.	..	2 2 0	..	..	Francis, Geo., Market Place, Romsey ..	..	0 10 6	..
Blunt, Thos. P., Wyle Cop, Shrewsbury	2 2 0	..	..	Fritb, E. J., 198 New Kent Road, S.E.	..	..	0 5 6
Borland, John, 7 King Street, Kilmarnock	6 6 0	..	..	Froom, W. H., 75 Aldersgate Street, E.C.	..	1 1 0	..
Bottle, A., 37 Townwall Street, Dover	5 5 0	..	..	Frost, George, 7 Corn Market, Derby ..	..	1 1 0	..
Bourdas, Isaiah, 59 Belgrave Road, S. W.	..	21 0 0	..	..	Furness, Joseph M., 137 FitzWilliam Street, Sheffield	..	1 1 0	..
Boutall, G. S., Marchmont Street, W.C.	..	5 5 0	..	..	Gadd, Chas., 1 Harleyford Road, Vauxhall ..	..	1 1 0	..
Bowen, Jno. Wm., 13 Curzon Street, Mayfair, W.	..	2 2 0	..	..	Gadd, Robert, 1 Harleyford Road, Vauxhall ..	..	1 1 0	..
Bower, W., 96 Tottenham Court Road, W.	..	1 1 0	..	..	Gale, H., 1 Thorne Villas, Addington Road, Margate..	..	0 10 6	..
Bowerbank, J., Castle Gate, Cockermonth	3 3 0	..	..	Gale, Samuel, 225 Oxford Street, W.	..	5 5 0	..
Bowler, Ellis, Bury	1 1 0	..	..	Garner, James, 119 Kensington High Street, W.	..	5 5 0	..
Boyfield, J. R., 16 Cross Street, Hatton Garden, E.C.	..	0 10 6	..	..	George, Henry, 68 Broad Street, Worcester ..	..	1 1 0	..
Bransford, A. J., 3 Chandos Street, W.C.	0 2 6	..	Gerrard, A. W., University College Hospital, Gower Street, W.C.	..	..	2 2 0
Brembridge, Elias, Park House, New Malden	1 1 0	..	Gibbs, W., Union Street, Ryde, I.W.	..	..	2 2 0
Brembridge, Richard, 17 Bloomsbury Square, W.C.	..	2 2 0	..	..	Goldfinch, G., 7 Brent Terrace, Hendon ..	..	..	0 5 0
British and Colonial Druggist, Proprietors of	5 5 0	..	..	Goldsworthy, W. L., 6 Giltspur Street, E.C.	..	..	0 5 0
Brown, A. J., 55 Trafalgar Road, Greenwich	1 1 0	..	..	Goodwin, John, Lower Clapton, E.	..	..	5 5 0
Buckle, James, Malton, Yorks	0 10 6	..	..	Godfrey & Cooke, 30 Conduit Street, W.	..	..	1 1 0
Buckley, James J., 111 Earl's Court Road, S.W.	..	1 1 0	..	..	Gossling, W. R., 55 Fore Street, E.C.	..	..	1 1 0
Bullock, J. Lloyd, 3 Hanover Street, W.	..	10 10 0	..	..	Gostling, T. P., Market Hill, Diss ..	..	..	5 5 0
Burden, E. M., Duke Street, Manchester Square, W.	..	5 5 0	..	..	Granger, Harold, High Street, Newhaven ..	..	..	0 10 6
Burden, R. H., 333 Oxford Street, W.	..	0 10 6	..	..	Greasley, M. F., 17 North Street, Leeds..	..	..	1 1 0
Burdon, John, 14 Giles Gate, Durham	3 3 0	..	..	Green, John, 196 High Street, Deal ..	..	..	0 10 6
Burroughs, Wellcome & Co., Snow Hill Buildings, E.C.	..	5 5 0	..	..	Greenish, T. Edward, 5 Bathurst Street, Sussex Square, W.	..	..	2 2 0
Burton, Joseph, 397 Cambridge Road, E.	..	1 1 0	..	..	Greulich, Thomas, 20 New Street, Dorset Square, N.W.	..	..	1 1 0
Burton, Percy H., 397 Cambridge Road, E.	..	0 10 6	..	..	Gulliver, William, 6 Lower Belgrave Street, S.W.	..	..	2 2 0
Butt, E. N., 13 Curzon Street, Mayfair	105 0 0	..	..	Hackman, L. L., St. Clair Terrace, Kingston, Landport	..	..	0 10 6
Cadman, D. C., Blackheath	1 1 0	..	..	Hall, T. Howard, 80 Drayton Park, N.	..	..	2 2 0
Carteighe, Michael, 180 New Bond Street, W.	..	10 10 0	..	..	Ham, John, Netber Stowey ..	..	..	1 1 0
Cashmore, J. F., Mill Lane, Stony Stratford	0 5 0	..	Hampson, R., 205 St. John Street Road, E.C.	..	..	1 1 0
Chapman, Henry, 52 Newboro' Street, Scarborough	5 5 0	..	..	Handley, Charles, 15 High Street, Stoke Newington, N.	..	..	5 5 0
Chapman, J. J., 20 Boundary Road, St. John's Wood, N.W.	1 1 0	..	Harding, Joseph, Harwich ..	..	..	0 10 6
CHEMIST AND DRUGGIST, Proprietors of The	52 10 0	..	..	Hardy, S. C., 177 Regent Street, W.	..	..	1 1 0
Childs, J. L., Portland	1 1 0	..	..	Harvey, W., Victoria Park Hospital, E.	..	..	0 10 6
Church, H. G., Cambridge	3 3 0	..	..	Harvey, W. R., 98 Humberstone Road, Leicester	..	..	3 3 0
Churchill, J. & A., 11 New Burlington Street, W.	..	5 5 0	..	..	Hawke, W., & Son, Wild Court, W.C.	..	..	5 5 0
Clark, John, 11 Melbourne Terrace, York	1 1 0	..	..	Hearon, Squire & Francis, 5 Coleman Street, E.C.	..	..	25 5 0
Cockeram, R. P., 5 Coleman Street, E.C.	..	2 2 0	..	..	Heron, James, 139 Princes Street, Edinburgh ..	..	..	10 10 0
Cole, E. H., 171 North Street, Leeds	0 10 6	..	..	Herring, W., 40 Aldersgate Street, E.C.	..	..	10 10 0
					Hill & Son, Arthur S., 101 Southwark Street, S.E.	..	..	5 5 0
					Hills, T. Hyde, 225 Oxford Street, W.	..	..	10 10 0
					Hills, Walter, 225 Oxford Street, W.	..	..	5 5 0
					Hodgkinson, G. A., 254 Goswell Road, E.C.	..	..	0 10 6
					Hodgkinson, Stead & Treacher, 193 Upper Whitecross Street, E.C.	..	..	10 10 0
					Hodgkinson (Thomas), Prestons & King, 81 Bishops-gate Street Without, E.C.	..	..	5 5 0

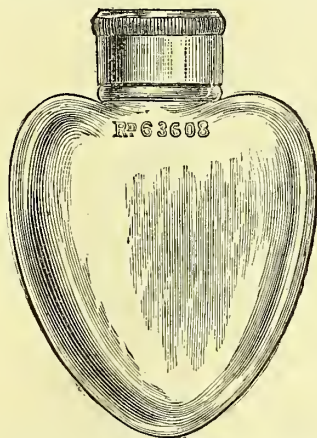
	Donations			Annual Subscriptions				Donations			Annual Subscriptions		
	£	s.	d.	£	s.	d.		£	s.	d.	£	s.	d.
Hogg, Mary, Bideford	0	5	0	..	..	..	Richardson, W. L., 5 Great Queen Street, W.C.	5	5	0	..	..	..
Holding, John, 169 Hemingford Road, N.	0	10	6	..	..	..	Robbins, J., 147 Oxford Street, W.	10	10	0	..	..	..
Holmes, E. M., 17 Bloomsbury Square, W.C.	2	2	0	..	..	..	Robertson, George, London Hospital, E.	1	1	0	..	..	..
Hopkin, W. K., 16 Cross Street, Hatton Garden, E.C.	10	10	0	..	..	..	Robinson, R. A., 195 Brompton Road, S.W.	5	5	0	..	..	..
Hovenden & Sons, R., 31 Berners Street, W.	10	10	0	..	..	..	Roblison, Whiteley, Ilaworth, Yorks	0	10	0	..	..	..
Howell, Maurice, 61 High Street, Peckham, S.E.	1	1	0	..	..	..	Roper, Henry E., Oundle .. .. .	..	..	..	0	5	0
Howie, W. L., Cornbrook House, Eccles ..	5	5	0	..	..	..	Sadler, Wm., jun., 115 Stoke Newington Road, N.	1	1	0	..	..	..
Hughes, Thomas, Red House, Llandilo ..	1	1	0	..	..	..	Sandell, Thos. O., Baron's Court Road, West Kensington, W.	3	3	0	..	..	..
Humphreys, Richard, 12a Upper Belsize Terrace, N.W.	0	10	6	..	..	..	Sandford, George W., 47 Piccadilly, W.	5	5	0	..	..	..
Idris & Co., 10 Ascham Street, Kentish Town, N.W.	5	5	0	..	..	..	Sainsbury, S., 176 Strand, W.C.	0	10	6	10	6	..
Ince, J., 11 St. Stephen's Avenue, Shepherd's Bush, W.	..	..	..	1	1	0	Sanger, C., 489 Oxford Street, W.	1	1	0	..	..	..
Ive, William, 115 Gloucester Road, South Kensington	5	5	..	..	..	..	Saul, John E., 143 New Bond Street, W.	1	1	0	..	..	..
Jackson, George, 870 Rochdale Road, Manchester	1	1	0	..	..	..	Saunders & Son, 81 Cannon Street, E.C.	5	5	0	..	..	..
Jones, W. Harris, 4 Macleise Road, W.	0	10	6	..	..	..	Savage, W. D., 23 Freshfield Road, Brighton	1	1	0	..	..	..
Jones, W. Hy., 405 Caledonian Road, N.	0	10	6	..	..	..	Savory & Moore, 143 New Bond Street, W.	52	10	0	..	..	..
Kay, Samuel, Lower Hillgate, Stockport	5	5	0	1	1	0	Schaelt, G. F., 52 Royal York Crescent, Clifton, Bristol	1	1	0	..	..	..
Kay, Thomas, Lower Hillgate, Stockport	5	5	0	1	1	0	Sharp, Benjamin, Brook Villa, Batheaston, Bath	..	..	..	2	2	0
Kemp, D. S., 27 Coverdale Road, Shepherd's Bush	5	5	0	..	..	..	Shenstone, J. C., 13 High Street, Colechester	0	10	6	..	..	..
Kemp, W. C., 56 Milton Road, Trammer Park, Birkenhead	..	..	..	0	5	0	Shepherd, J. W., Settle	2	0	0	..	..	..
Lee, Charles H., 7 Broadway, Ealing, W.	1	1	0	..	..	..	Shillock, A., Addiscombe	0	5	0	..	..	..
Leslie, H., 2 Northumberland Street, W.C.	0	10	6	..	..	..	Silverlock, H. T., and W. B., 92 Blackfriars Road, S.E.	5	5	0	..	..	..
Lidwell, Joshua E., 257 Vauxhall Bridge Road, S.W.	1	11	6	0	10	6	Simpson, Henry D., 2 New Street, Louth	1	1	0	..	..	..
Lloyd, J., Croydon .. .. .	..	..	..	0	5	0	Slater, John, Castle Street, Beaminster	1	1	0	..	..	..
Linford, J. S., 16 Gladstone Street, Hull	2	2	0	..	..	..	Smith & Co., 132 Borough, S.E.	5	5	0	..	..	..
Lorimer & Co., Hargrave Park Road, N.	15	15	0	1	1	0	Smith, J., High Street, Clay Cross	0	10	0	..	..	..
MacCrimble, Thos., High Road, Tottenham	2	2	0	..	..	..	Smith, John H., 227 Commercial Road, E.	..	..	..	0	10	6
McDonald, K., Dunkeld	1	1	0	..	..	..	Smith, Robert G., 5 Earle Road, Liverpool	0	5	0	..	..	..
Macfarlan & Co., Edinburgh	10	10	0	..	..	..	Snow, G. F., 7 Pall Mall East, W.	0	5	0	..	..	..
Macintosh, Archibald, 21 Montague Street, Rochesay	1	1	0	..	..	..	Soole, J. H., 48 Compton Street, W.C.	..	..	..	0	5	6
MacKenzie, James, 45 Forrest Road, Edinburgh	..	..	..	0	10	6	Spalding & Hodge, 101 Drury Lane, W.C.	5	5	0	..	..	..
McMurtrie, John, 23A Duff Street, Maeduff	..	..	..	0	5	0	Spokes, Sir Peter, 25 Chester Terrace, Regent's Park	5	5	0	..	..	..
Madeley, E. S., West Kensington Terrace, Kensington	1	1	0	..	..	..	Spurling, W. E., 187 Marlboro' Road, Chelsea	0	10	0	..	..	..
Maitland, Pelham C., 235 East India Road, E..	1	1	0	..	..	..	Spyer, Newton, 1 Lancaster Gate, W.	1	1	0	..	..	..
Malzey, Ebenezer, 194 Cassland Road, South Hackney	0	10	6	..	..	..	Squire & Sons, 413 Oxford Street, W.	26	5	0	..	..	..
Marsh, E. R., 49 Chippenham Road, W..	0	10	6	..	..	..	Stamp, E. B., 29 High Street, Hampstead	2	2	0	..	..	..
Marshall, J. F., 14 Lord Street, Gainsborough ..	1	1	0	..	..	..	Stanton, H. S., Daere Hill, Roek Ferry ..	0	5	0	..	..	..
Martin, N. H., 29 Mosley Street, Newcastle-on-Tyne	5	5	0	..	..	..	Stephenson, G. R., 55 St. James's Street, W.	0	5	0	..	..	..
Martin, T. C. W., 36 Camden Square, N.W.	1	1	0	..	..	..	Stephenson, J. B., 48 Frederick Street, Edinburgh	..	..	..	0	10	6
Martindale, W., 10 New Cavendish Street, W..	2	2	0	..	..	..	Stiekland, W. H., 23 Cromwell Place, South Kensington, S.W.	1	1	0	..	..	..
Mason, H. D., 16 Cross Street, Hatton Garden, E.C.	0	10	6	..	..	..	Stone, Fred. W., Exeter	1	1	0	..	..	..
Mathews, J. & H., 1 Queen's Gardens, Hyde Park	5	5	0	..	..	..	Stooke, A., 2 King Street, Milton next Sittingbourne	1	1	0	..	..	..
Maurice, James, 34 Bedford Street, Plymouth ..	1	1	0	..	..	..	Storey, Wm., 43 Church Street, Seaham Harbour	..	..	..	0	5	0
Mee, George, 79 Grosvenor Road, Highbury, N.	2	2	0	..	..	..	Strother, C. J. (Collected by, in small amounts), Raglan House, Kennington Park	13	13	0	..	..	..
Millhouse, H. H., 54 Piccadilly, W.	1	1	0	..	..	..	Stuart, J. E., 180 New Bond Street, W.	5	5	0	..	..	..
Moody, Stephen W., 6 Walkergate, Louth	..	..	..	1	1	0	Swingburn, R. H., South Monlton	1	1	0	..	..	..
Morson & Son, Southampton Row, W.C.	10	10	0	..	..	..	Symes & Co., 14 Hardman Street, Liverpool	5	5	0	..	..	..
Moule, Wm., Redditch	1	1	0	..	..	..	Synons, W. H., 130 Fellows Road, South Hampstead	2	2	0	..	..	..
Mousley, Wm., Redditch	1	1	0	..	..	..	Tanner, A. E., High Cross, Tottenham, N.	2	2	0	..	..	..
Mumbray, R. G., Richmond, Surrey	1	1	0	..	..	..	Taylor, Fredk. J., Lovat Bank, Newport Pagnell	5	5	0	..	..	..
Mumby, Col. Chas., Spring Gardens, Gosport	10	10	0	..	..	..	Taylor, Geo. S., 13 Queen's Terrace, St. John's Wood	2	2	0	..	..	..
Mundy, Alfred O., 11 Norton Folgate, E.	..	..	..	1	1	0	Thomas, H. A., 78 Grae church Street, E.C.	2	2	0	..	..	..
Muteh, J. P., 359 Hornsey Road, N.	0	5	0	..	..	..	Thompson, H. A. & Son, 22 Worship Street, E.C.	5	5	0	..	..	..
Naylor, W. A. H., 5 Coleman Street, E.C.	2	2	0	..	..	..	Thompson, John, 11 Aldersgate Street, E.C.	5	5	0	..	..	..
Negus, Samuel, 6 Leicester Terrace, Northampton	0	10	0	..	..	..	Thresh, Dr. J. C., The Willows, Buxton	2	2	0	..	..	..
Nesbit, J., 162 High Street, Portobello	5	5	0	..	..	..	Trist, Richard, Pinner	0	10	6	..	..	..
Newbery & Sons, F., 1 King Edward Street, Newgate Street, E.C.	10	10	0	..	..	..	Truman, H. V., 187 Newington Butts, S.E.	..	..	..	0	5	0
North, Walter D., 180 Upper Kennington Lane, S.E.	0	10	6	..	..	..	Truchmanu, Dr. M., 113 Fellows Road, Hampstead	1	1	0	..	..	..
Paffard, Frank, Blackburn	0	10	0	..	..	..	Turner, Charles E., 20 Bury Street, Great Russell Street, W.C.	2	2	0	..	..	..
Parkinson & Son, Southampton Row, W.C.	5	5	0	..	..	..	Turner, Charlton, East Finchley	0	5	0	..	..	..
Passmore, F. R., 17 Bloomsbury Square, W.C.	2	2	0	..	..	..	Urwick, W. W., 60 St. George's Road, S.W.	1	1	0	..	..	..
Paul, Dr. B. H., 17 Bloomsbury Square, W.C.	2	2	0	..	..	..	Vials, J. B., 56 Stanhope Street, W.C.	1	1	0	..	..	..
Petrie, J. J., Aboyne .. .. .	..	..	..	0	5	0	Wade, T. T., 37 Grosvenor Road, Bristol	0	2	6	..	..	..
Pettinger, Elmer, 49 High Street, Hampstead, N.W.	0	5	0	..	..	..	Walker, Henry, 44 Bernard Street, W.C.	1	1	0	..	..	..
Phillips, A. J., 180 New Bond Street, W.	1	1	0	..	..	..	Walker, J. C., 74 Turnpike Road, Hornsey	0	5	0	..	..	..
Plaister, W. J., 13 Gledhow Terrace, South Kensington	1	1	0	..	..	..	Warren, William, 24 Russell Street, Covent Garden	1	1	0	..	..	..
Powell, T. H., 116 Denmark Hill, S.E.	0	5	0	..	..	..	Welch, S. C., 4 Jewry Street, E.C.	1	1	0	..	..	..
Prichard, Edward, 10 Vigo Street, W..	2	2	0	..	..	..	West, Charles, 19 Finsbury Square, E.C.	1	1	0	..	..	..
Quain, Dr. Richard, 67 Harley Street, W.	10	10	0	..	..	..	Whittaker, John W., Oldham Road, Rochdale	..	..	..	0	2	0
Quick, W. T., Lympstone, Devon	0	10	6	..	..	..	Wigg, Henry J., 225 Oxford Street, W.	5	5	0	..	..	..
Quiney, R. de Q., 143 Fenchurch Street, E.C.	4	4	0	..	..	..	Wilkins, H., St. James's Vestry, Piccadilly	0	10	6	..	..	..
Randall, W. B., Southampton	5	5	0	..	..	..	Williams, C., Pembroke Dock	1	1	0	..	..	..
Ransom, F., Fairfield, Hitchin	2	2	0	..	..	..	Williams, John, 16 Cross Street, Hatton Garden, E.C.	21	0	0	..	..	..
Ransom, Wm., Hitchin	5	5	0	..	..	..	Wilson & Son, Harrogate .. .. .	..	..	..	1	1	0
Reboul, A. P., 69 Liverpool Road, Islington, N.	1	1	0	..	..	..	Wilson, C. F., 25 Liverpool Road, Stoke-on-Trent	..	..	..	0	5	6
Redwood, Professor, Shern House, Walthamstow	5	5	0	..	..	..	Wilson, James, 53 Hatton Garden, E.C.	1	1	0	..	..	..
Rees, D., Ystrand-Rhonda	0	10	6	..	..	..	Widderspoon & Co., 7 Serle Street, Lincoln's Inn	1	1	0	..	..	..
Rees, R. W., 10 Vigo Street, W.	1	1	0	..	..	..	Wood, C. H., 46 Loraine Road, N.	2	2	0	..	..	..
Reville, H. A., Ealing	0	10	6	..	..	..				
Richards, Edwin, 16 Cross Street, Hatton Garden, E.C.	0	10	6	0	10	6							
Richardson, John & Co., Friar Lane, Leicester ..	10	10	0	..	..	..				

	Donations		Annual Subscriptions	
	£	s. d.	£	s. d.
Woolley, Hermann, 69 Market Street, Manchester ..	5	5 0	..	..
Worfolk, G. W., Ilkley	1	1 0	..	..
Wright, Alfred, 8 Bentinck Crescent, Elswick Road, Newcastle-on-Tyne	0	10 6	..	..
Wright, Layman & Umney, 50 Southwark Street, S.E.	10	10 0	..	..
Wyman & Westwood, 25 Charles Street, Farrington Road, E.C.	5	5 0	..	..
Yates, Robert, 64 Park Street, Southwark .. .. .	..	..	1 1 0	..
Yewdall, Edwin, 56 Wade Lane, Leeds	0	10 6	..	..
Young, R. F., Station Road, New Barnet	1	1 0	..	..



HEART SCENT-BOTTLE.

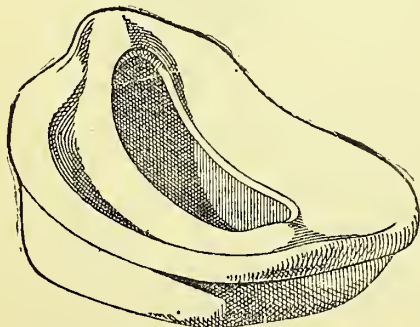
THIS is a new form of cheap smelling-bottle which is much wanted in some localities. It is very convenient for the pocket or ladies' bag, is covered with a screw metal cap fitted with an indestructible washer, and can be filled



and sold profitably for sixpence. The bottles are made in white and coloured glass, plain or fluted, by R. H. Barrett, The Oval, Hackney.

ANATOMICAL BED-PAN.

MESSRS. AYRTON & SAUNDERS, of Liverpool, are introducing Dr. Forshaw's patent bed-pan, the peculiarity of which is that it is constructed on anatomical principles. As will be seen from the illustration, the seat of the pan is adapted to fit the body, so that the invalid may use it with ease and com-



fort. Another important and new feature of the pan is that the top is removable, thus allowing the pan to be kept thoroughly clean. The novelty is one which chemists may confidently bring under the notice of medical men and nurses.

Gazette.

PARTNERSHIPS DISSOLVED.

HARDMAN, J., DUNN, J., & DUNN, P., Milton, near Stoke-upon-Trent, under the style of the Staffordshire Carbonising Company.

RILEY BROTHERS, Leicester, hosiery, stockinette, and veterinary bandage manufacturers.

SCOTT, W., LEE, E. J., & Spencer, J., Wallsend, chemical manufacturers, under the style of the Wallsend Chemical Company, late J. W. Allen (Limited); as far as regards J. Spencer.

THE BANKRUPTCY ACT, 1883.

RECEIVING ORDER.

KELSEY, WILLIAM, Chalford Hill, Bisley, Gloucestershire, L.R.C.P. and L.R.C.S.

FIRST MEETINGS AND PUBLIC EXAMINATIONS.

COOPER, JOHN GREGORY, Chatteris, Cambridgeshire, veterinary surgeon. May 24, George Hotel, Chatteris. May 26, County Court, Peterborough.

WALKER, GEORGE, & WALKER, JOHN, Barrow-in-Furness, aerated-water manufacturers. May 25, 2 Paxton Terrace, Barrow-in-Furness. May 25, Court House, Barrow-in-Furness.

ORDER MADE ON APPLICATION FOR DISCHARGE.

WATSON, JOHN DOUGLAS, Lurline Gardens, Battersea Park, late of Victoria Road, Battersea Park, and Corderries, Chalford, Gloucestershire, surgeon. Discharge suspended for seven days.

SCOTCH SEQUESTRATION.

DUNCAN, T., & Co., Edinburgh, brushmakers. May 20, at 2 Dowell's Rooms, Edinburgh.

TRADE-MARKS APPLIED FOR

THE *Trade Marks Journal* publishes the following notice:—"Any person who has good grounds for objection to the registration of any of the following marks may, within two months of the date of this journal, give notice in duplicate at the Patent Office, in the form 'J,' in the second schedule to the Trade Marks Rules, 1883, of opposition to such registration." The address of the Patent Office is Southampton Buildings, London, W.C.

From the "*Trade Marks Journal*," May 18, 1887.

"WALTON & HESLOP'S GOLDEN BALM," and other wording, on label; for a preparation for the cure of hoarseness, &c. By John Walton & George Heslop, trading as Walton & Heslop, 5 Groat Market, Newcastle-on-Tyne. 58,865.

"E. STEINER'S VERMIN PASTE," other wording, and figure of a rat; for the same. By E. Steiner & Co., Henry Street, Limehouse. 59,278.

"STANDARD LIQUID GLUE," and other wording, on label; for the same. By Perry & Norwood, 127 Pomeroy Street, S.E. 60,025.

A lion rampant; for pharmaceutical preparations. By T. Hopkinson, trading as Thomas Hopkinson & Co., Park Street, Nottingham. 60,875.

"FAIRY—PYRAMID," crossed; for candles, night-lights, &c. By S. Clarke, Child's Hill, N.W. 61,203.

Figure of crescent moon and three owlets; for perfumery. By Hirst, Brooke & Hirst, Leeds. 61,820.

"HYDRONAPHTHOL" (in script), and signature of depositors; for chemical substances, Class 2. By Seabury & Johnson, New York. 61,963.

"COCOMALY. CHAMPION & Co."; for patent medicines. By M. R. Cobbett, trading as Champion & Co., Datchet, Bucks. 62,985.

A DAY WITH THE SCOTTISH EXAMINERS.

BY ONE WHO HAS SURVIVED IT.

"AT ten o'clock, A.M., precisely," in response to the assistant-secretary's invitation, I enter the portals of 36 York Place, Edinburgh, *en route* for the "sweating-room," or "torture-chamber," as nervously witty candidates are pleased to designate it. Depositing impedimenta in the cloak-room, and restoring the intellectual balance by carefully adjusting the hair before a glass, the library is next entered. Here I find the would-be graduates clustered in little knots, each individual apparently trying to persuade the rest that he is quite happy and comfortable. A few minutes' suspense, affording time to sign the visitors' book in a somewhat tremulous hand, is terminated by the announcement that the examiners are ready for us. Upstairs we go to the number of thirteen (unlucky omen!) and enter the dread chamber. Before us is a screen, to the left some well-cushioned chairs await occupants, and on the right the chairman is enthroned with becoming dignity. Welcoming us with a beaming smile, he bids us be seated, and shortly commences to call the roll until all the examiners are supplied with "heckling" material. I am left with the, as yet, uncalled-for victims, and proceed to "take stock" of my surroundings. Watching the faces of such examiners and examinees as are in view for a time, I next make a detailed psychological analysis of the states of feeling in myself and (so far as external signs will show) others. Shakiness in the limbs, afterwards extending over the whole body, is the first general symptom; then a rush of blood to the head, followed by a gradual restoration of the vital equilibrium, induces a drowsy sensation, and one involuntarily yawns. Similar appearances in my fellow-sufferers seem to indicate that the sweating-room fever and ague is infectious in the extreme. A fair rest on a most comfortable seat acts as a tonic, and I proceed to face the chemistry examiner, when called upon, with a moderate amount of confidence. He is a tall individual and reasonably good-humoured.

I am asked to name in succession three official salts, and by applying appropriate tests, and taking advantage of the many hints thrown out (which I duly note, and am grateful for), I succeed in labelling them rightly. A few questions on their preparation and that of kindred substances concludes this division. Physics come next, and I am told to take the specific gravity of a mixture of spirit and water by means of a hydrometer, being gratuitously informed, by the way, that this must needs be less than that of pure water. This accomplished, questions follow as to the method of calculating the exact proportions of the two fluids in the mixture, the manner of using Sykes's and Beaume's hydrometers, &c. In every instance I follow out the self-imposed rule to plead ignorance rather than venture guesses, and, if in any doubt, to let it be known, whilst making it clear that I should know where to seek for the information desiderated. I part from my law-imposed critic wondering if I have not said "I don't know" rather too often.

My next subject is *materia medica*, and the presiding genius at this table wears an immovable face which I scan in vain in the endeavour to test the value of my answers. In all the other questioners I could read the mind more or less, but this face might have been Medusa-struck in its wall-like placidity. Still I have no difficulties. The specimens are fair average ones, and the investigation of my acquaintance with them and their characteristics and preparations is none too searching.

Back to the chairs again, then to botany. Here I meet a different type of man. Wearing glasses and apparently not old, he really looks foppish. It is only in looks though, as I soon discover. Am tested with inflorescences and flowers, half-a-dozen dried plants, and questions on fertilisation, differences in vessels, and the ascent of sap. The stock query, "How do you reconcile the ascent of sap to the *top* of a tree (height *not* specified) with the fact that a column of water can be supported to the height of 30 feet only?" is trotted out as usual, though a corner of the museum might well now be set apart for it. Time being called again, a genial, benevolent-looking gentleman takes charge of me in my wanderings through a maze of badly-written Latin. We have a pleasant chat over some of the prescriptions, and

finish up with the repetition of a few B.P. doses, and the translation of an English recipe into the older language. An interval follows, whilst the examiners "refresh," then pharmacy claims me for its own. Though by this time in a very easy frame of mind, I must confess to a little sinking of heart as I seat myself before the rows of bottles and jars. Who has not experienced the tantalising sensation of recognising a drug or its preparation when the name was far, far away? Only one such instance occurs to-day, fortunately, and I find my present confessor acting almost as a tutor. Time passes quickly with him. Going back to the old resting-place, I whisper to a fellow-examinee, "but one more river to cross." Now I begin, for the first time, to hope I may be successful, and I anxiously scan the little group at the centre table, busy running up the marks. The scrutiny is favourable, and, at last, I am at the dispensing counter. Here I have pills and a *tolu* emulsion to make, and I get through swimmingly. The examiner leaves me undisturbed after commencing, and speaks pleasantly and encouragingly at the conclusion of my performance with the mortar and pill-machine. In a few more minutes the Chairman calls me, expresses his pleasure at my success, and congratulates me upon my generally high marks. My certificate will be ready at four o'clock. It is now just past three, so I make for the telegraph office and "wire" the glad tidings to those concerned; then return to the rooms and discuss the day's proceedings with fortunate and unfortunate there waiting. At last the certificates come, and we are free to disperse and wander in search of food and rest. By the way, I should like to suggest the advisability of enabling candidates to procure refreshments during the course of the examination. It is too long a time to remain unfed, and it may be that an empty stomach often induces an empty head.

With regard to the scope of the examination, I can but speak from my own experience. I may say that the general range of questions is rather wide, and would seem to indicate a desire on the part of the examiners to encourage an extended course of study and from different points of view. The men of single books in each subject are likely to be at a disadvantage. In chemistry the practical work of recognition and testing is the chief thing, associated with a knowledge of the preparation of the B.P. chemicals. Physics is treated very superficially, and seems quite an afterthought. *Materia medica*, as might be expected, requires an intimate acquaintance with specimens and all concerning them, and is a thorough test of one's retentive faculties. Botany is interesting. There is vastly less dreary routine questioning than might be anticipated when one considers what are the favourite text-books in vogue. Room is offered, too, for displaying one's acquaintance with recent research in the science. The prescriptions require some little care in their decipherment; otherwise they are interesting, and afford some amusement at times. Doses are, of course, to be kept ready for use at a moment's notice. Smelling for hours at a stretch at collections of galenicals tends to dishearten one when endeavouring to fix their characteristics. But the infliction is comparatively trifling when the pharmacy table is reached. Some six or eight specimens are to be named in an average case. Ability to describe and explain processes in one's own words is highly advantageous. To crown all comes dispensing. Emulsions find great favour, such as *tinct. tolu* or *cannab. ind.*, or, again, *ol. ricini*. (Note.—Always use a mortar to emulsify to ensure giving satisfaction.) Pills to be coated, blisters to be spread, and suppositories to be cast about complete the tale of what may be expected at this stage. A full hour is allowed for the work, and one is not worried by continual inspection. A clear explanation of the methods adopted is expected at the end, and one may be asked how he would dispense certain special items, such as Bland's pills.

To sum up, I think that the examination is conducted fairly. The tests are none too severe (rather the reverse I felt at times). The examiners are considerate, and appear to *wish* one to succeed. They seem particularly anxious that their questions should be clearly understood, and refrain from all unnecessary mystification. Their desire is evidently to discountenance "cram" to get beneath *school* surface-polish, and to show honest, hard-working students that their labour has not been in vain. Conscientious, self-prepared men need have no fear of being plucked unfairly in the Metropolis of the North.

CONSULS' REPORTS.

ARGENTINE REPUBLIC.

Pharmaceutical Imports The imports of articles of pharmaceutical interest into the Argentine Republic during the year 1885 are officially stated to have amounted to \$2,497,349, which is probably rather below the real value, considering the heavy import duties prevailing. This total is made up of the following items:—

Alcohol (duty 50 per cent.) 245,390 litres, value \$162,081, principally from Germany; prepared colours, value \$195,579, principally from England; sheep medicines (duty free), value \$234,736, from England, Germany, and Italy; prepared medicines (duty 25 per cent.), value \$576,443, from France and England; perfumery (duty 50 per cent.), value \$202,353, from France; pharmaceutical substances and products (duty 25 per cent.), value \$98,679, from Germany and England; chemical substances and products (duty 25 per cent.), value \$180,554, from Germany and England; soda ash (duty 25 per cent.), 1,803 tons, value \$104,101, nearly all from England.

The United Kingdom furnished about one-third of the total value of these imports, the precise figures being—

	Dollars
Linseed oil	60,860
Prepared colours	163,557
Sheep medicines	62,246
Prepared medicines	127,651
Soda ash	94,231
Other chemical products	410,571

Total of chemical and pharmaceutical imports .. 819,116

CHILE.

Foreign Trade The foreign trade of Chile is not, apparently, in a flourishing condition. The customs duties in 1885 yielded about 10 per cent. less than in 1884, while both imports and exports have been falling steadily since 1883.

Among the articles of export from Valparaiso the following only are of pharmaceutical interest:—

	1885 Cwts.	1884 Cwts.
Aniseed	677	1,584
Quillaya bark	7,822	10,660
Linseed	15,834	36,333
Honey	19,153	38,426

Iodine There is a heavy export duty on this article, from which, in 1884, a revenue of 54,755*l.* was derived, and of 24,436*l.* in 1885.

CHINA.

Foreign Trade of Hainan Writing from Kung Chow, the principal port of the island of Hainan, Consul Oct. Johnson states that there seems but little chance of any considerable development of European trade with the island of Hainan, and the prospects for the resident foreign merchants are still less encouraging. Of these there are five establishments, four British and one German, but they have very little of the regular trade in their hands, and the Chinese are continually taking more of it away from them.

Opium The importation of opium in Hainan is increasing year by year. In 1885 Kung Chow received 143,948*l.* worth of the drug, and in 1886 171,100*l.* worth. The reason for this large increase is that the neighbouring districts on the mainland, which were formerly supplied from Hong Kong, now get the drug from this port.

At Tamsui, in Formosa, the net total importation of opium has also increased.

Cable Communication A cable is now being constructed which will connect Tamsui, the principal port of Formosa, with the telegraphic system of the world, and railway extensions are contemplated on the island which will probably have the effect of greatly increasing the importance of some of its ports, to the detriment of the Chinese port of Amoy, which now constitutes the link between Formosa and the outer world.

Medicines Among the imports in Tamsui, medicines, without further specification, figure to the extent of 1,904 piculs in 1886, against 1,738 piculs in 1885, 961 piculs in 1884, and 905 piculs in 1883, a steady and remarkable increase. In Northern Formosa malarial fever reigns to an alarming extent, the daily death-rate at one period last year being no less than 26 per 1,000.

Camphor in Formosa The almost extinct camphor trade has recently been taken under the protection of the authorities as a Government monopoly, with probable advantage to all concerned. For whereas it has of late years been impossible to procure camphor in remunerative quantities at one time and in one place, the Government now undertakes to collect at fixed depôts the scattered supplies, paying at a certain rate to the producer and retailing at a fair profit to the merchant for export. The influence of these regulations upon the camphor trade may be judged by the following figures, indicating the exports of camphor from Tamsui, in piculs of 133½ lbs.:—

1882	1883	1884	1885	1886
4,934	3,086	443	3	934

Sulphur Sulphur, of which a considerable quantity is produced within easy distance of the port of Tamsui, may now be exported if covered by certificate from the customs. The district of which Pakhoi, in

Pakhoi Exports 1886 1,133,333 lbs. star anise against 1,332,800 lbs. in 1885. Another product of importance as an article of export is cassia lignea, the only article in the

Cassia Lignea export of which the resident foreign merchants are concerned, and which is brought down from the interior under export transit pass. The shipments of this article increased from 825,600 lbs. in 1885 to 3,142,533 lbs. in 1886.

Pharmaceutical Imports Among the articles of import into Southern China by way of Pakhoi, the following are mentioned as being popular: worm tablets, in 25c. bottles with Chinese advertisement (F. Reichert, Hamburg); Florida water, in 8c. and 35c. bottles with Chinese label (Murray & Lanman, New York); French extracts and glass scent-holders with indiarubber squirts; glycerine soap in 4c. to 15c. cakes (from Japan); and dyes in bottles. The value of the latter imports has increased six-fold since 1882. They are of German and Swiss origin, and the consignees in Hong Kong are German. Violet, scarlet, magenta, blue, eosine blue, and Victoria green crystals sell at 30c. per bottle. The duty is 5 per cent. ad valorem.

COLOMBIA

Business at Carthagena Our consul at Carthagena, in South America reports a considerable improvement in the trade of that port during 1886, and holds out an excellent prospect for the future, if the country should remain free of revolutionary movements. There is an immense tract of country awaiting development on the Sinu and Alralo rivers, and Carthagena would be the natural outlet for produce from this region. In 1886 the United Kingdom took 45 per cent. of the total value of the imports into Carthagena, and the United States 24 per cent.

Drugs The principal drugs exported in 1886 included:—

	Packages	Weight	Value
	Number	Kilos.	Dollars
Cinchona			
To Great Britain	120	7,508	4,702
" France	107	5,132	3,542
" United States	241	16,220	6,185
Balsam			
To Great Britain	82	3,710	2,300
" France	107	5,132	3,542
" Germany	73	3,614	2,130
" United States	161	5,363	3,780
Indigo			
To France	97	7,760	3,700
" Germany	2	174	260
Tonguin beans			
To United States	175	15,416	7,965

Annatto, tamarinds, and sarsaparilla are now also exported, but in insignificant quantities.

COSTA RICA.

In San José, the capital of this republic, a city of 30,000 inhabitants, there is not, our consul states, a single British house of business, although all other principal civilised nations are represented. The resources of the country are being steadily developed, and the imports for 1886, although the customs duties at the beginning of that year were increased by about 40 per cent., show no decline upon preceding years.

Exhibition of Produce A very successful exhibition of Costa Rican products was held at San José last year, as a preliminary to the Paris International Exhibition of 1889, where the Republic will, it is thought, make a considerable show. Among the articles exhibited were a large selection of medicinal plants and dyeing materials, natural mineral waters, anise, linseed, sarsaparilla, vanilla, quince seed, castor oil, essential oils, &c.

ECUADOR.

Business prospering In reviewing the trade and commerce of the Republic for 1886, our consul observes that the country has been in a more settled state than was the case during the preceding years. In 1886 there have only, our representative dryly remarks, been "several alarms of political disturbances, and continuous revolts of an insignificant nature, on the part of some disaffected citizens known as the Montoneros." This, for Ecuador, is no doubt the very acme of tranquillity, and under these propitious conditions the development of the country's resources is progressing with great rapidity. The staple products of the Republic are cocoa, indiarubber, coffee, and hides, show a large increase in production, and the purchasing power of the country has correspondingly increased. Public works are being extended in all directions.

Cinchona Of Peruvian bark, 2,987 quintals (value 8,961*l.*) were exported in 1885, and only 613 quintals (value 2,452*l.*) in 1886. This is the only article showing a decrease during the past year, and it may be noted that the collection of cinchona has now been almost abandoned, owing to the difficulty of its transport through the forests of the interior, and the fact that its value has so declined as to render the product insufficient to cover expenses and freight. The abolition of export dues and reduction in freight, have not been found sufficient to overcome this drawback.

FRANCE.

The Marseilles Oil Trade The year 1886 has been a very bad one for the Marseilles oil manufacturers. The great fall in price of oleaginous seeds from India, and consequently in the oil produced, the extraordinary abundance of the olive crop, the large stock left over from last year, and the increasing habit of mixing cotton-seed and other oils with the olive oil, combined to cause a considerable fall in the price of the latter article, and it is remarkable that its cheapness stopped rather than increased business. Orders from abroad were very scarce, and the prices one-third lower than in the previous year.

The local manufacturers, whether of seed or olive oil, have had not only to contend with low prices and the loss of former markets, but also with a considerable rise in the tariff of the railway company.

ITALY.

Tuscan Olive Oil The olive crop of 1886 throughout Tuscany following upon the abundant crop of the preceding year, proved extremely scanty, it being almost the rule that there is never an abundant crop for two consecutive years. In the Riviera district, the centre of which is Porte Maurizio, there was, however, an unusually abundant crop, and in the Bari district also things were better than in Tuscany. Hence the export demand for Tuscan olive oil was limited to those markets which must have the very best oil, such as the other districts just named cannot produce. From France the demand was almost entirely for Riviera oil, which ranged in value fully 20 per cent. below Tuscan.

Leghorn Exports In 1885 the port of Leghorn exported 5,273 tons of olive oil (value 274,196*l.*), against 3,757 tons (value 202,858*l.*) in 1884. Other important exports are boracic acid, 2,495 tons (value 53,972*l.*) in 1885, and soap, of which in 1885 909 tons, to the value of 27,257*l.*,

were shipped. The large olive oil trade, of which Leghorn is the centre, probably accounts for the heavy quantity of cotton-seed oil (1,206 tons, value 4,118*l.*) imported there in 1885.

JAPAN.

Export statistics Among the articles exported from Hiogo and Osaka the following are named:—

		1886	1885
Antimony	Piculs	31,009	36,130
Aniseed	"	983	1,360
Camphor	"	35,632	21,199
" oil	"	5,808	3,330
Cuttlefish, dried	"	18,922	12,271
Fish oil	"	702	1,347
Gallnuts	"	1,847	2,054
Ginseng	"	265	545
Isinglass	"	7,237	7,595
Medicine	Dollars	30,300	50,000
Rapeseed	Piculs	1,600	2,549
Seaweed	"	20,296	26,952
Soap	Cases	85,734	142,453
Sulphuric acid	"	6,270	6,193
Tallow	Piculs	838	2,821
Wax, bees'	"	35	51
" fish	"	120	141
" vegetable	"	12,899	13,707

PERU.

Trade at Mollendo Business at this port, in consequence of the devastating results of the late war, is in a very unsatisfactory condition, although some small impetus has been given to trade by the fact it has now been made a free port by the Peruvian Government for all goods destined to Bolivia. During 1886 Mollendo exported 4,539 quintals (value \$226,950) cinchona bark, 442 quintals (value \$11,050) rhatania root, and 705 quintals (\$17,625 worth) coca leaves.

RUSSIA.

Russian Petroleum Our Odessa correspondent writes that the demand for Russian petroleum, both in Russia and foreign countries, is so rapidly increasing that the Transcaucasian Railway will shortly be unable to maintain the necessary traffic for its transport. It is, therefore, essential that pipes be put down from Baku to Poti and Batoum. Negotiations in this direction are now being carried on at the capital, and it is said that the laying down of the pipes will shortly be commenced, and that the railway company is to obtain the concession. During the past year large reservoirs were constructed in London, Antwerp, Trieste, and Tunis for the reception of Russian petroleum direct from tank steamers, and these are already in use. It is rumoured that an excise duty on petroleum in its present state is to be imposed, but the general opinion is that this step would be detrimental to all, excepting the large exporters, and that until the pipe referred to above is laid down and the trade properly developed and extended, the imposition of the excise should be deferred, for then the tax would influence the price of petroleum only to a small degree, and the fear of seeing the industry monopolised by a few of the larger and more powerful exporters would not be realised.

SPAIN.

Drug Houses in Malaga The following firms are mentioned as the principal importers of drugs and chemicals in Malaga:—Juan Canales, Compañia, 15; Antonio Chacon, Cisneros, 58; Manuel Comitre, Dos Aceras; J. Herrera Fajardo, Especerías, 24; Geo. Hodgson, Puerta del Mar (perfumery); Francisco Garcia, Carnicería, 46; E. Garnica, Cister, 24; Gonzales Marfil, Compañia, 36; Antonio Mamey, Plaza del Riego, 1; Perez de Guzman, Plaza Constitucion, 16; Perez Souviron (F.), Molina Lario, 12; Augustin Prolongo, Puerta del Mar, 7.

IT IS DISCOVERED THAT EXTRACT OF WHALE is quite as good as beef extract and much more economical. A whale weighing 200 tons yields 5,000 pounds of extract, and one pound of extract makes 100 pints of soup. Thus one whale will furnish 500,000 people with dinners, and 100 whales will give all the people in the United Kingdom old enough to eat soup one comfortable meal apiece.—*O. P. and D. Reporter.*



The following applications for Patents have been registered at the Patent Office.

- Alkali.**—5,250.—April 9, 1887.—A. Shelmerdine. Obtaining a useful product from "lime mud."—5,753.—April 20, 1887.—T. T. Mathieson and J. Hawliczek. Manufacture of carbonate of soda or soda ash, and in apparatus employed therefor.—5,757.—April 20, 1887.—Also by same. Manufacture of caustic soda.—5,853.—April 22, 1887.—E. W. Parnell and J. Simpson. Utilisation of sulphate of lime and sulphate of baryta in the manufacture of alkalis and sulphuretted hydrogen.—5,854.—April 22, 1882.—By the same. Production of sulphide of ammonium and in apparatus therefor.
- Bandage.**—5,259.—April 9, 1887.—W. Clark. Obstetrical supporter.—5,550.—April 16, 1887.—H. Fisher. For "A 'flexible knee-cap,' for support of the knee-joint, allowing free action with any amount of pressure desired."—5,656.—April 19, 1887.—G. F. Williamson, J. Dawson, and H. W. Bean. Machine for winding up bandages.
- Bleaching Liquor.**—5,393.—April 13, 1887.—E. Hermite. Manufacture of bleaching and disinfecting liquor.
- Bottles (Paper).**—5,319.—April 12, 1887.—G. A. Wilkins. Manufacture of paper bottles.
- Butter Colour.**—5,302.—April 12, 1887.—J. B. Fabre and L. Bergel. Dry colouring powder for cheese, butter, and other products.
- Carbolic Acid.**—5,824.—April 21, 1887.—J. W. Knights and W. D. Gall. Manufacture of carbolic acid and other tar acids.
- Court plaster Case.**—6,065.—April 26, 1867.—L. Meyers. Metallic case for containing court-plaster.
- Dental.**—5,906.—April 23, 1887.—G. H. Jones. Improved method in or of the manufacture of artificial teeth.
- Disinfectants and Preservatives.**—5,532.—April 15, 1887.—E. Edwards. Material to be used as a disinfectant, preservative against decay, &c.—5,535.—April 15, 1887.—A. P. Wire. Compound for the preservation of animal and vegetable substances.—6,037.—April 25, 1887.—A. D. Hunter. Compositions for treating matters having an offensive smell.—6,209.—April 28, 1887.—R. L. Hickes. Combining disinfectants with soda crystals.—6,085.—April 26, 1887.—S. Hallsworth and R. Bailes. Disinfecting powder or compounds.
- Fatty Bodies.**—5,432.—April 14, 1887.—W. P. Thompson. Process for the continuous distillation of fatty bodies.—5,433.—April 14, 1887.—By the same. Manufacture of cotton-seed oil and other products from cotton seed, cotton-seed oil, or its residues.
- Feeding-bottles.**—5,610.—April 18, 1887.—M. Flurschein and T. Bergmann. Feeding-bottles and other drinking-vessels.
- Flesh Glove.**—5,344.—April 13, 1887.—J. Fox. Manufacture of friction flesh or bath gloves.
- Gallic Acid.**—5,953.—A. Kern. Preparation of the methylic ether of gallic acid, and manufacture of purple colouring matters therefrom.
- Inhalers.**—5,836.—April 21, 1887.—K. Schulze. Apparatus for administering vapours for medicinal purposes.
- Insufflator.**—5,852.—April 22, 1887.—G. Holloway. A valveless insufflator for injecting medicated powder into the nostril.
- Medicinal Preparations.**—5,419.—April 14, 1887.—T. Thompson. An improved and entirely new method for the admixture of ferrous sulphate or sulphate of iron or potassium carbonate or carbonate of potassium, so that

chemical action between them is prevented until exposed to each other in the presence of moisture.—5,430.—April 14, 1887.—A. J. Boulton. Process for conveying medicinal matter.—5,590.—April 16, 1887.—E. Merck. Manufacture of naphthalol and utilisation of same for medicinal purposes.—5,783.—April 20, 1887.—T. Nugent. Prevention of suffocation and also of falling down, of persons in epileptic fits.—5,998.—April 23, 1887.—C. Shuttysier. Remedy for a cough, consisting of syrup, morphia, and digitalis.

- Microscope.**—5,361.—April 13, 1887.—T. H. Simmonds. Microscopic slide holders.
- Pepper.**—5,919.—April 23, 1887.—F. Cross. Decorticating or scouring peppercorns.
- Russian Leather.**—5,524.—April 15, 1887.—G. Delfos. An oily chemical preparation for the manufacture of Russian leather.
- Smelling-salts Bottles.**—5,726.—April 19, 1887.—R. H. Barrett. Closing the mouths of bottles containing smelling salts.
- Sulphuric Anhydride.**—5,714.—April 19, 1887.—W. S. Squire. Manufacture of sulphuric anhydride.
- Surgical.**—5,845.—April 21, 1887.—F. B. Jones. Automatic tracheotomy tubes.—6,041.—April 25, 1887.—J. Leiter. Instrument for the examination of the interior of the human body.
- Varnishes.**—5,586.—April 16, 1887.—F. Crane. Preparation of lacquers and varnishes, and applying the same to metallic articles.—5,791.—April 20, 1887.—F. Crane. Compound or varnish for coating metal, wood, and other materials.
- Water-softeners.**—5,655.—April 19, 1887.—G. E. Davis. Softening and purifying water for domestic and trade purposes.
- Yeast.**—5,378.—April 13, 1887.—F. J. von der Ropp. Treatment of yeast.

Specifications of Patents recently published.
1886.

- 4,326. A. J. T. Wild. Brushes for cleaning the interiors of bottles, &c. 8*d*.
- 4,932. T. King. Food for animals and birds. 4*d*.
- 5,494. B. Von Schenk. Substances for igniting matches, &c. 6*d*.
- 5,681. J. Hargreaves and others. Treating pyrites, &c. 6*d*.
- 6,072. P. A. Maignen. Filtering apparatus for water, &c. 8*d*.
- 6,105. W. C. Wilmore. Tooth-ache specific. 4*d*.
- 6,191. W. D. Borland. Bromine preparations. 6*d*.
- 6,210. H. W. Langbeck and R. E. Ritsert. Separating cholesterin fats from commercial wool fats, &c. 4*d*.
- 6,259. C. D. Abel. Extracting perfume essences. 8*d*.
- 6,370. R. Lavender. Oxide of iron pigment colour. 8*d*.
- 6,413. J. H. Johnson (The Badische Aniline & Soda Fabrik). Preparing from gallic acid yellow colouring matter. 6*d*.
- 6,588. C. E. Landon and J. Wilson. Mixing chloroform with water. 4*d*.
- 6,966. H. M. Caldwell. Deodorant and disinfectant. 4*d*.
- 11,011. J. W. Knights and W. D. Gall. Disinfecting powder. 4*d*.
- 16,491. J. M. Walton. Sulphurous acid, &c. 8*d*.

1887.

117. A. R. Foote. Applying medicaments to cavities of the body, &c. 8*d*.
119. A. R. Foote. Inhalers. 6*d*.
122. H. F. Von Konitz and J. Zuntz. Extract of coffee. 4*d*.
269. T. J. Hutton. Medicine chest. 8*d*.
458. R. S. Packson. Rectal specula for treating hemorrhoids. 6*d*.
- 1,916. T. R. Johnston. Grinding machine for manufacturing ink, &c. 8*d*.

Abstracts of Patents.

THE following are abstracts of specifications of patents which have expired owing to the non-payment of renewal fees:—

PASTING AND APPLYING LABELS TO BOTTLES.—(No. 4,591. 1882. 6d.) The object of this invention by Mr. Frederick Foster is to paste labels and apply them to the bottle, or other vessel upon which it is desired to place the label, in such a manner as is aimed at by manual labour. The inventor describes the construction of the machine, which is further explained by drawings.

LINT.—(No. 4,856. 1882. 2d.) The inventor, Moritz Salomonson, proposes a method for producing lint from new flax-fibres. For this purpose the flax, after carding, is treated in a bath composed of soda 95°, 6 per cent., and 5 per cent. of a mixture of potash ($\frac{1}{3}$), and of lime, tallow, and oleine ($\frac{2}{3}$). After boiling in this under pressure for three hours, the flax is removed, bleached, and again treated with the fatty composition, and, finally, carded until a soft wool results.

FEEDING-TUBE. (No. 4,999. 1882. 6d.) This is stated to be "an improved apparatus for the administration of alimentary fluids and semi-fluids," and for similar purposes. It is essentially a feeding-bottle of the flat, or boat, shape, capable of standing in two positions, and of being filled from the top or the side. There is a large number of parts about the bottle, all of which are figured and described. The more important features of the invention are: (1) the cap is partly secured to the bottle; (2) the rest of the cap is attached to the end of the indiarubber tube; (3) the glass tube within the bottle is secured to the cap, and when the remainder of the cap is placed over it, it joins the outer tube. The construction of the different parts can only be understood by reference to the specification.

PRESERVING FLUID. (No. 5,021. 1882. 2d.) Mr. John Prosser is the inventor of this fluid for admixture with wines and spirituous liquors, to be used in combination with essences, syrups, or the like, as an aerated or non-aerated drink. The fluid is made by mixing 16 oz. of salicylic acid, 32 oz. of glycerine, and a gallon of rectified spirit in a mortar, and filtering, if necessary, through charcoal. The above quantity is sufficient for 250 gallons of wine.

MAGNETIC BRUSHES. (No. 5,109. 1882. 6d.) This is an invention by Mr. Ellis Parr and Joseph R. Gibson for improved magnetic brushes, to be used for the cure of nervous complaints in man or beast. The invention consists simply in using instead of the ordinary threading wire of brushes a magnetised steel wire, coated with nickel, gold, or other non-corrodable metal. The patent is illustrated.

GLYCERINE. (No. 5,112. 1882. 2d.) Mr. John Imray proposes a method for separating glycerine from fatty matters, which consists in subjecting a mixture of the fat and zinc white to the action of steam at high pressure.

ANTISEPTIC. (No. 5,153. 1882. 4d.) This is a powder invented by M. Carl M. Pielsticker for the preservation of alimentary substances, such as meat and fish. It is composed of boracic acid (20 parts), phosphate of soda (8 parts), and formiate of soda (2 parts). An ounce of this powder is dissolved in 20 oz. of water. This solution is painted over the meat, which afterwards (and this is an essential part of the patent) is kept in chambers with an atmosphere of carbonic oxide or carbonic acid gas.

MILK, PRESERVATION OF. (No. 5,437. 1882. 6d.) M. E. and O. E. Pohl propose to preserve milk by filling it fresh into bottles, which are at once securely corked and sealed. Through the cork passes the limb of an N-shaped tube; the milk is heated to 212° Fahr., and as soon as that is done, the open limb of the tube is packed with cotton wool previously saturated with glycerine and boracic acid, or other antiseptic.

Abstracts of specifications of recent Patents.

FEEDING-BOTTLE. (E. L. P. Lelievre, Paris. No. 3,251. 1886. 8d.) This is a bottle with graduations showing how much milk to put into the bottle, and how much water, for infants of different ages. The stopper is combined with the teat, with or without a short rigid outer tube, the inner tube fitting into the stopper by a ball-and-socket joint.

AERATED BEVERAGE. (H. R. and C. R. Matthews. No. 3,298. 1886. 4d.) Mixtures of water and wine, spirits, or liquors charged with carbonic acid gas.

EMULSIONS. (A. Blackie. No. 3,466. 1886. 6d.) This invention is described as improvements in the preparation of emulsions of vegetable, animal, and mineral oils; of solid paraffins, waxes, and fatty substances; and of liquids which are insoluble, or but partially or slightly soluble, in water. A solution of gelatine or other similar substance is made, in the proportion of 4 oz. to the gallon of water. In 12 parts of this 1 part of phosphate of soda or potash, or carbonate of soda or potash, is dissolved by the aid of heat, and this mixture is capable, by the ordinary means, of emulsifying from 24 to 36 parts of animal or vegetable oils. For emulsions of ammonia is substituted for the above-named salts. Chloroform and such liquids may be emulsified in the above manner. For mineral oils and the like the alkali is replaced by soft soap. For example, an emulsifying solution is made with 6 oz. of concentrated size, 1 lb. of soft soap, and 1 gallon of water, and this mixture is capable of emulsifying 2 gallons of paraffin oil. Either of the solutions named is applicable for preparing leather-dressing, sheep-washes, and the like, and for the latter purpose the inventor claims the addition of alkaline sulphides, sulphur, arsenic, and other substances.

VACCINATION SHIELD. (No. 5,716. April 27, 1886. 6d.) This is a specification of an invention of an article of wearing-apparel, by Rose E. McGowan, of Woldaragh, Upper Bangor. The shield is essentially part of the sleeve of a dress, and consists of a stiff flap, padded inside, which may be raised or lowered as desired. The specification is illustrated.

PURIFICATION OF PERFUMES. (No. 5,936. May 1, 1886. 6d.) Communicated by E. A. Vibeau, chemist, Paris. In extracting perfumes with bisulphide of carbon, it is difficult to get rid of the last traces of the solvent, and the purpose of the patent is to overcome that fault. The inventor proposes to evaporate the bisulphide solution to dryness, and remove residual traces of the solvent with pure hydrogen. The residue is then treated with sufficient alcohol to convert it into a waxy condition, the mixture is placed in a vessel which is then hermetically sealed. The contents are heated until they become perfectly fluid; the heat together with agitation converts the bisulphide of carbon into sulphuretted hydrogen, which escapes as soon as the vessel is opened. Traces of sulphuretted hydrogen remaining in the liquid are removed with silver, or a similar metallic salt, and the pure perfume obtained in alcoholic solution by well-known methods.

OXIDE OF IRON PIGMENT COLOUR. (No. 6,370. May 11, 1886. 8d.) The inventor is Mr. R. Lavender, of Tallymain, and his invention relates to the manufacture of rouge and apparatus therefor. Diagrams of the latter are given, and without these the specification is not suitable for abstraction; but the prominent features of the invention are, (1) copperas is desiccated; (2) then ground; and (3) heated in the apparatus until all the sulphuric radicle is driven off. The last part of the process is conducted in such a way that it is claimed that the rouge does not require to undergo the process of lixivation.

CALVES' FEEDING TUBE. (No. 7,269. May 31, 1886. 4d.) Mr. W. H. Pool, of Chipstable, proposes to construct a feeding apparatus for calves and other young animals by attaching to a piece of indiarubber tubing a large teat and shield, fixed in such a way that the calf cannot swallow the teat, or take it too far into its mouth. The end of the tube is placed in a pail or other vessel containing milk.

INHALER. (No. 8,073. June 17, 1886. 8d.) Mr. J. McGeary, of 37 Upper Baker Street, Middlesex, adapts to an inhaler, with a flexible tube-mouthpiece, a two-way stopper, which may be used to close the vessel, or body, of the inhaler. By turning this stopper half way round the mouth-piece is brought into connection with the air space of the vessel, and the other way-hole of the stopper is brought exactly over a tube fixed to the stopper which dips below the liquid, so that when a person inhales the vapour from the inhaler, the air which enters the vessel must pass through the medicated liquid, and will be to a greater or less extent impregnated with the medicament. The specification is illustrated.

COLOUR TESTS FOR STRYCHNINE AND OTHER ALKALOIDS.

By CHARLES L. BLOXAM.

THE following characteristic and delicate test for identifying strychnine does not appear to have been noticed.

The alkaloid, on a glass slide or a porcelain crucible lid, is dissolved in a drop of dilute nitric acid, and gently heated; to the warm solution a very minute quantity of powdered potassium chlorate is added, which will produce an intense scarlet colour; one or two drops of ammonia will change this to a brownish colour, giving a brownish precipitate; the mixture is then evaporated to dryness, when it leaves a dark green residue, dissolved by a drop of water to a green solution, changed to orange-brown by potash, and becoming green again with nitric acid; these last changes of colour may be repeated any number of times.

The green colouring-matter is evidently a product of the action of ammonia upon the scarlet body, for if this be bleached by heating or by excess of chlorate, before the ammonia is added, the residue on evaporation is light brown, and yields with potash a bright yellow solution which is nearly bleached by nitric acid.

No other of the commonly occurring alkaloids which I have tried could be mistaken for strychnine by the above test, but each of them exhibits some peculiarity when treated in the same way, which would give a clue to its identity.

This will be seen in the subjoined table, in which the tests are supposed to be applied to the same portion of the alkaloid as described above.

Some few months ago I drew attention in the *Chemical News* to the use of bromine-water in the detection of alkaloids. I find that a more convenient reagent can be made by mixing a weak solution of potassium chlorate with enough strong hydrochloric acid to turn it bright yellow, and enough water to make it very pale yellow. This *euchlorine* solution is added by degrees to the solution of the alkaloid in hydrochloric acid, which is boiled after each addition.

Strychnine gives a fine red colour, bleached by excess and returning when boiled.

Brucine gives a violet colour, in the cold, which is bleached by excess and restored by boiling.

Narcotine gives a bright yellow colour in the cold, which becomes pink on boiling and adding more of the *euchlorine* solution.

Quinine gives a faint yellowish pink on boiling.

After cooling the solution, weak ammonia is gradually added.

Strychnine gives a yellow colour unchanged by boiling.

Brucine gives the same.

Narcotine gives a dingy green, becoming brown on boiling.

Quinine gives a bright green, becoming yellow on boiling.

Morphine gives no reaction; but if, after boiling with the *euchlorine* solution, the liquid be cooled and allowed to remain in contact with zinc for a minute or two, it will give the characteristic pink reaction with ammonia.—*Chemical News*.

			HNO ₃	KClO ₃	NH ₃	Residue	KHO	HNO ₃
			<i>Cold</i>	<i>Heated</i>				
Strychnine	..	..		Pink	Scarlet	Green	Orange	Green
Brucine	..	..	Violet; scarlet	Yellow	Yellow	"	Dark brown	Green; Brown
Narcotine	..	..		Bright yellow	"	Dark brown	"	Reddish yellow
Morphine	..	..	Orange-red	Yellow	"	Light brown	Light brown	Light brown
Quinine	..	..	—	—	—	"	"	"
Cinchonine	..	..	—	—	—	"	"	"
Caffeine	..	..	—	—	Pale yellow	Red; yellow	—	—

INCOMPATIBILITY OF IODOFORM AND CALOMEL.

By AUGUST DRESCHER.

SOME time ago Mr. S. J. Bendiner observed that a mixture of iodoform and calomel undergoes a chemical change on keeping. The author has followed up the inquiry, and made the following observations, which are reported to the *Druggist's Circular* :—

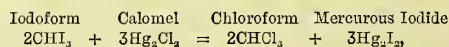
When equal parts, by weight, of calomel and iodoform were triturated together in a porcelain mortar, no change of colour was produced, nor was there any notable reaction or foreign odour. The mixture was then divided into three parts. No. 1 was introduced into a colourless vial, and No. 2 into an amber-coloured vial; both were exposed to direct sunlight, having been well corked, and were examined from time to time. No. 3 was placed in a well-corked, amber-coloured vial, and placed in diffused sunlight. The results were as follows :—

No. 1, after one hour, showed signs of decomposition, which, after five hours, had advanced to a marked degree; the powder exhibited all phases of colour, from yellow to dirty yellow, then black to yellow, and, finally, whitish below, with numerous greenish and greyish specks, and bright orange-red above. On carefully removing and collecting some of the orange-red powder, and treating it with potassium iodide solution, it was found to be soluble to a colourless fluid (mercuric iodide). Foreign odour was not observed.

No. 2 behaved somewhat similarly, but the decomposition took nearly thrice the time.

No. 3, at the end of a week, exhibited no appreciable signs of decomposition, but, after two weeks, these were quite evident. The powder had nearly lost its iodoform odour, and had assumed a dull greyish-yellow colour, with some red specks.

Some of the mixture of equal parts of calomel and iodoform was now put into a test-tube, and gently heated over a Bunsen burner. Result: Smell of chloroform; formation of a variously coloured sublimate on the lower parts of the test-tube. Mr. Bendiner also detected chloroform, but the author failed to detect hydrochloric acid as found by him. Assuming the change to be represented by the equation—



proportional quantities of iodoform and calomel, as indicated by the equation, were heated in a test-tube, and the chloroform smell was obtained quite unmistakably pure and copious, as well as mercurous iodide of characteristic greenish-yellow colour (with very gentle heat), rapidly changing to yellow, then reddish-yellow, indicating the change of mercurous into mercuric iodide. The author therefore concludes :—

(1) That the decomposition of the mixture of iodoform and calomel is a case of simple metathesis induced by light (actinism) or heat.

(2) That the formation of the red substance (mercuric iodide) is not due to the primary reaction of iodoform and calomel upon each other, but that it is the product of a secondary reaction.

The change from the mercurous to the mercuric state is one which is peculiar to the iodide itself, and for this reason the author considers that the red coloration of the mixture has no direct connection with the double decomposition. In conclusion, he accounts for the failure to detect chloroform in the vials exposed to light rays in two ways, viz., it may have evaporated through the more or less porous corks, or the chloroform may have been itself affected and chemically changed by the light rays, which are well known to be destructive to chloroform. Further experiments on this point are being carried out.

Trade Report.

Note to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., May 19.

BUSINESS has been very quiet this week, and the drug sales held to-day passed off with the least possible spirit. No direct allusion was made to the question of monthly drug sales, but complaints were made by one of the presiding brokers of the extreme slowness with which the catalogues were gone through, and it was stated that one firm had made an analysis of the drug catalogues of the last twelve months, with the result that three-fourths of the total goods were found to have been offered sale after sale without finding purchasers. The alterations in values have been very few this week. Among the articles which have improved are *Opium*, *Ipecacuanha*, *Tinnevelly senna*, *Olive oil*, *Cape aloes*, and *Guinea grains*, while *Quinine*, *Cardamoms*, *Cassia lignea*, *Cascarilla*, and *Japan wax* are easier.

ALOES.—Of the *Cape* variety 101 cases were offered in to-day's drug sales, about one-half of the supply selling at slightly higher rates as compared with the last sales, but the advance was insufficient for some holders, who apparently think that the advance will continue. Good hard slightly drossy to fine hard realised 27s. 6d. to 30s.; fair, more or less drossy, 25s. to 26s. 6d.; and drossy to soft and ordinary from 24s. 6d. down to 17s. 6d. per cwt. *Curaçao* also find a pretty good sale at 80s. to 105s. for fair palish to fine livery, 53l. for good but dark quality in gourds, 32s. to 45s. for ordinary to fair capey, and 23s. for low drossy red. No less than 148 packages *East Indian* aloes were placed in sale, by far the largest quantity which has been offered for a long time, but the bulk of these was bought in, low dark Socotra in mats at 7l.; soft palish, 52s. 6d.; fair to good soft red, 5l. 10s. to 17l. 17. 6d. per cwt.

AMBERGRIS.—One tin good grey amber (about 2½ oz.) was all that was shown, and 94s. per lb. was paid for it.

ANNATTO is tending lower. The 40 baskets *Pará* roll recently imported, and which prove to be of good bright quality, could not find a purchaser, and were bought in at 1s. 9d. per lb. nominally. An offer of 1s. per lb. was rejected. Seed from Ceylon, not very good, sold at 2d. per lb.

ARAROA.—Eight cases rather dark in colour, and mixed with woody matter, were bought in.

BAEL FRUIT.—Forty bags very ordinary dark slices sold at ¾d. per lb.; inferior whole apple at 1d. per lb. Fair pale quarters bought in at 4d. per lb.

BALSAMS.—*Copaiba* remains firm, but nothing was done in the article at the drug sales, good Maranham being bought in at 1s. 10d., and *Pará* at 1s. 9d. per lb., but less would be taken. The advancing tendency of *Peruvian* balsam on the Hamburg market, where balsam importers continue to buy up the arrivals, appears to awaken no response here. Fifteen cases of this balsam were offered, but only cloudy qualities and settlings found purchasers, according to quality, at 2s. 7d. to 2s. 10d. per lb. Good thin balsam bought in at 5s. per lb. nominally, which seems to indicate a somewhat firmer feeling. *Storax* remains neglected; so does *Tolu*.

BUCHU.—The position is practically unaltered. Only a few bales discoloured round leaves, which will require careful sorting, were sold at 2¼d. per lb., and two bales rather better quality at 5d. per lb.

CALUMBA does not improve, but there is a good sale for the root at the recent decline. About 340 bags were offered, and mostly sold at 14s. to 22s. per cwt. for small dark mixed to fair yellow.

CAMPHOR (CRUDE).—192 cases very damp *China* were bought in at 65s. nominally, and 26 tubs badly sea-damaged *Japanese* sold, without reserve, at 59s. per cwt.

CAMPHOR (REFINED).—We do not hear of any change. Refiners are firm, but complain of slackness in the demand.

CANELLA ALBA.—54 bales, mostly sea-damaged, quill were bought in at 25s. per cwt., partly much above the value, but holders do not seem over-anxious to realise.

CANNABIS INDICA is quite neglected, at least so far as ordinary quality is concerned, the only grade offered in public sale.

CANTHARIDES.—Twenty cases *Chinese* beetles were offered, and ten of these, very wormy, were sold at 1s. 9d. per lb.

CARDAMOMS.—About 250 cases were offered, but there was less competition than at the previous sales, and prices were generally lower. *Ceylon-Malabar* fruit sold fairly well, as the holders appeared anxious to realise; but a large parcel of *Mangalore* cardamoms met with no attention whatever at the prices asked, and remained unsold. The Ceylon shipments from the beginning of the season until April 21 show the following results: 1886-7 222,638 lbs., 1885-6 169,534 lbs., 1884-5 91,309 lbs., 1883-4 44,463 lbs. The following prices were paid to-day: *Ceylon-Malabar* good pale long, thin skinned 2s. 4d. to 2s. 5d., pale plump small to medium 1s. 9d. to 2s. 2d., pale medium size but country damaged 1s. 7d. to 1s. 8d., smooth yellow, partly split 1s. 5d. to 1s. 6d., yellow plump 1s. 3d., small brown and split 11d. to 1s., ditto country damaged 9d., ordinary 6d. per lb. *Mangalore* ordinary wartz to plump but yellow and uneven sized 1s. 5d. to 2s. 8d.; seeds 1s. 5d. to 1s. 6d. per lb.

CASCARILLA.—Only a few bales sold at about 3s. below valuations, viz. 22s. to 25s. for small brown quill, damaged to sound.

CASSIA FISTULA.—Four packages good pods, but not very fresh, sold at 23s. per cwt. Thirty-four cases pulp from Java sent here from Amsterdam, and to which reference was made in our last report, were bought in at 30s. per cwt., 25s. being suggested. The pulp is packed in tins of about 38 lbs., two of which go to a case.

CHINA ROOT.—One bale, imported *via* New York, very bold dark root, sold at 12s. per cwt.

CINCHONA.—A rather large assortment was offered in to-day's drug sales, consisting principally, as is usual at these auctions, of South American bark. Some genuine *Carthagena* bark, partly bold but mostly small and dusty, was shown but found no buyers, though good bark of this class is said to be rare. There was a fair supply of genuine *Lora* bark, which has lately been very much inquired for, and which met with fair competition. From 6d. to 1s. 9d. per lb. was paid for it. Ordinary *Cuprea* sold at 1½d. to 2d. per lb. Very low flat *Calisaya* went at 1½d. to 3½d. per lb.

The latest figures received relating to the Ceylon shipments are somewhat encouraging, being again slightly in favour of the preceding season. From October 1, 1886, to April 21, 1887, 8,544,490 lbs. were shipped from the island, against 8,596,774 lbs. and 5,345,638 lbs. in the corresponding periods of 1885-86 and 1884-85. Advices from Colombo state that the principal buyer of branch bark on that market has been instructed from home not to buy any more ordinary branch containing less than ½ per cent. sulphate of quinine, as manufacturers do not find it pay to work this kind of bark when prices are so low. If this led to the stoppage of harvesting ordinary branch in Ceylon it would do good to the planters, whom it cannot pay to harvest branch at the present rates, especially now that the women and children are wanted for plucking tea, and the reduction of the export by say 3,000,000 lbs. each season would considerably enhance the value of the stem bark.

COCA LEAVES.—A few bales good strong *Huanoco* were bought in at 1s. 9d. per lb. nominally; 4½d. to 9d. per lb. was paid for very low to thin broken *Truwillo*.

COLOCYNTH.—About 31 packages *Turkey* were exhibited

and bought in, at 1s. 4d. per lb. for seedy mostly shrivelled apples, but including some good fruit; 6d. per lb. was paid for low sea-damaged.

CONDURANGO.—Ten bales sea-damaged sold at 8d. to 10d. per lb.

CROTON SEED is now very cheap, fair pale selling at 15s. per cwt.

CUBEBS.—Twenty-five bags, shrivelled and stalky, were not pressed for sale, and bought in at nominal rates. Seven cases of a compound going by the name of "cubeb powder" were again offered, and bought in at 8l. per cwt.

GALANGAL.—More money is asked for this article, viz. 10s. per cwt. for sound root.

GALLS.—The fair quantity of 675 bags Turkish galls was offered at the drug sales, but business remained confined to nineteen bags, mostly sea and sugar damaged (some very badly), which fetched from 20s. upwards. Fair quality realised 58s. per cwt.

GUARANA without business. From 4s. 6d. to 5s. per lb. is asked nominally.

GUINEA GRAINS sold at an advance of about 2s. 6d. per cwt., from 17s. to 18s. being paid for 50 bags, offered "without reserve." This price appeared to be rather a surprise to the selling broker, who suddenly remembered that he had another lot which he would like to sell if the audience would allow him to do so, which they would not.

GUM ARABIC.—The market remains quiet, and at the last auctions a very small proportion of the parcels offered changed hands. *Australian* gum met a fair demand at steady rates; chiefly middling to good fair quality at 63s. to 71s. per cwt. In sale, to-day, 70s. to 75s. was paid for good strong, partly dusty, and 72s. 6d. for blocky ditto. Of *Barbary* gums Amrad is very quiet, though owners are more inclined to listen to offers than was the case a short time ago. The bulk of the *Cape* gum offered was of middling quality and partly blocky, and found no buyers, but in to-day's sale 61s. was paid for fair Cape, and 55s. for small dark mixed ditto, an advance of about 5s. per cwt. Of East Indian gum comparatively little sold, and that chiefly in small lots. Pale Amrad brought 6l. 10s., siftings of the same 60s. per cwt. Common brown Amrad siftings sold from 12s. to 32s. 6d. per cwt., according to quality. Ghatti was principally bought in above its value. Brown Amrad has sold at 52s. per cwt. Gherivah and Talca gums are very quiet. In *Senegal* gums the market is without alteration, with comparatively small sales. For *Turkey sorts* the demand is very limited at the present extreme prices.

GUM BENJAMIN.—No *Siam* gum was offered, but there was a large supply of *Sumatra* gum, including several parcels of fine quality bold pale almonds. The best lots remained unsold, but 9l. 12s. 6d. was paid for good pale almondy gum, rather false packed at the corners, and 6l. 10s. for fair brown seconds, also false packed. These prices appear to mark a slight decline.

DRAGON'S BLOOD, not in much demand at the sales. One case somewhat drossy cake of good colour sold very cheaply at 7l. 10s. per cwt.

GUM ELEMI.—146 boxes good whitish quality sold at 30s. to 31s. per cwt., a low price.

GAMBOGE.—Dampish and partly blocky pipe is worth 10l. 2s. 6d., and pickings 9l. 7s. 6d., the article being very firm.

KINO.—Two cases good black but slightly blocky sold at 35s. per cwt.

MASTIC.—Good pale tears are worth about 2s. 10d. per lb.

GUM MYRRH remains very firm, although only a small part of the 47 cases offered were sold.

HONEY.—Privately a good business has been done at decidedly firmer rates; but at the auctions most parcels were limited at prices too high to lead to business. Very ordinary to dull brown *Jamaica* sold at 15s. to 19s. per cwt. Ten tins deep yellow *New Zealand*, from last year's exhibition, but which seem to be looked upon with suspicion, were bought in at 35s. per cwt.

IPECACUANHA.—The advance continues, although the trade show great reluctance to pay the demanded advance. Thirteen packages, mostly woody root in second hand, were offered. Two serons *Rio*, fair annulated but slightly mouldy, sold at 7s. 9d. per lb. 10s. per lb. is now asked for good selected. A small box of pale *Carthagena* root sold at 5s. 6d. per lb.

IRISH MOSS.—Twelve bales very ordinary dark quality could not fetch more than 4s. per cwt.

JALAP seems to be moving higher, 7d. per lb. being paid for a few bales good tubers.

MATICO.—Five bales were offered, partly fair bright leaves and partly very broken and heavily mixed with stalk. All are held at 1s. per lb.

MUSK.—There was a very large supply of this article at to-day's auctions, but the demand for *Tonquin* pod musk, both for the home and export trade, was very good, and prices were well maintained at the level of the last auctions. Altogether 50 caddies *Tonquin*, 2 caddies *Carbardine*, and 1 caddy *Yunan* pod were offered, and 33 bottles grain musk. Fine first pile *Tonquin* bold pods, thin blue skin and under-skin, realised 85s. to 86s. per oz.; rather broken pods, 83s.; good pods, but with top and under-skin, 75s.; good but damp to very fine bold third pile, 40s. to 57s. 6d.; fair but black third pile 30s. the grain, 24s. to 62s. 6d. per oz.

OILS (ESSENTIAL).—Business in oil of *star-anise* in this market, as well as in the producing country, is being checked by the recent advance. No change has occurred in French and Italian essential oils, although there are some rumours of an impending rise in oil of *lemon*; but these appear without solid basis. Oil of *cinnamon*, of which 15 cases were offered in to-day's auctions, was in fairly good demand, and changed hands at 7d. to 1s. 1d. per oz. for deep yellow to straw-coloured; while 1s. 7d. to 1s. 8d. per oz. was paid for some fine oil from the Kaderane plantation. The shipments from Ceylon are very small this year. Good oil is quoted at 1½d. per oz. *Citronella* does not improve in value, and business is of an extremely limited character. Prices remain at ¾d. to 1½d. per oz. for native, and 1½d. per oz. for Fisher's brand. *Lemongrass* is held at 2d. per oz. *Nutmeg* oil of good quality sold at 5½d. per oz. to-day. In *otto of rose* no change has occurred. Oil of *peppermint* is quiet for all varieties. Menthol crystals remain cheap, and it does not seem likely that the "appeal to the masses" which is now being made by a well-known manufacturer of cones, and to which we allude elsewhere, will increase the consumption to a pitch which would necessitate an advance in the price of the article. *Ylang-Ylang* neglected.

OIL (COD-LIVER).—The position remains substantially the same as last week, but a change may probably occur ere long.

OIL (OLIVE).—In London a limited business is doing at slightly improved prices towards the close, *Mogadore* having advanced to 31l. A parcel of *Messina* was forced off at 30l., but was re-sold within a few days at 31l. 10s. The following is the position of the articles in the principal producing countries: In Italy stocks at the shipping places have been materially diminished by the increased export during April, of which Russia has taken a considerable share. As the blossoming has developed itself, the general tendency of the market has been downward, with fluctuations occasionally upon reports of heat and Sirocco winds. On the whole the progress of the blossoming is favourable in all districts, except that of Bari and Monopoli, whence there are still complaints of insufficient rain. In Sicily export demand has continued very trifling, and quarantine having been raised, permitting arrivals from the coast, prices have slightly declined, notwithstanding some unfavourable reports of the blossoming. Yellow *Messina* oil is quoted 30l. 15s. per 96 Caffisi, f.o.b. for prompt shipment.

In the Ionian Islands and Greece the markets remain firm at from 30l. f.o.b. upwards, and some Corfu oil is being shipped to Russia, where its good burning quality appears to be appreciated. There is no change to quote in the Smyrna market. In Candia the blossoming appears to proceed favourably, but there is little alteration in prices, the nearest quotation being equal to 31l. 5s. to 31l. 10s. c. f. & i. U. K. In Morocco exports show a tendency to fall off, and with

present low prices shippers report that supplies will be kept back. From Spain nothing is shipped to England, the local demand having been sufficient to cause an advance in prices to the equivalent of about 35*l.* 10*s.* c. & f. in Seville and Malaga. The last crop turns out to have been shorter than had been calculated upon, and especially so in Catalonia, which province is drawing supplies from other quarters. The blossoming appears to be proceeding regularly.

OPIMUM has maintained the advance mentioned in last week's report, and closes very firm.

PATCHOULY LEAVES.—Thirteen bales, free from stalk, were offered today, and bought in at 1*s.* 3*d.* per lb.

PODOPHYLLIN.—Two tins, about 10 lbs. each, of American make (Lloyd's) were offered to-day and bought in at 10*s.* per lb., but less would be taken, 7*s.* 6*d.* to 8*s.* per lb. being about the market value for good podophyllin in wholesale quantities.

RHUBARB.—Since the last sales a good private business has been transacted at an advance of from 2*d.* to 6*d.* per lb. over the rates then paid, but in the drug sales to-day, when a rather large quantity was offered, prices showed a slightly weaker tendency. The following prices were paid:—Fine *Shensi* root of good colour, round, three-fourths good pink fracture, one-fourth brown, 3*s.* 2*d.* per lb.; good ditto, rather more dark, 2*s.* 10*d.*; very good small ditto, 2*s.* 9*d.* per lb.; fair bold round, yellow coated, but rather dull in fracture, 2*s.* 6*d.* per lb.; small round *Shensi*, good pinky fracture, 2*s.* 3*d.* per lb.; yellow-coated, rather dull fracture, medium to small, 1*s.* 6*d.* to 1*s.* 8*d.*; half dark, flat root, 1*s.* 8*d.* to 1*s.* 10*d.*; fair round pickings, partly dark, 1*s.* 6*d.* per lb. A few cases *high-dried* root sold at 7½*d.* to 8½*d.* for small, partly dark, and country-damaged root.

ST. IGNATIUS BEANS.—From 6*d.* to 6½*d.* per lb. was paid to-day.

SARSAPARILLA sold fairly well at full prices, 1*s.* 10*d.* to 2*s.* 1*d.* for damaged to sound grey *Jamaica*, 1*s.* to 1*s.* 3*d.* for ordinary brands of *Honduras*, and 9*d.* per lb. for ordinary very chumpy *Pará*.

SENNA.—The supplies comprised 60 packages *Alexandrian* and 62 bales *linnevelly*, much of which was offered by second-hand holders. The former grade occasionally sold under valuation, but the latter realised very high prices, a fresh advance over last auction's rates being again established.

VANILLA.—Seventy tins were offered, a good deal of which has been sent here from Paris, nearly the whole of the supply being owned by second-hand holders. Although our stock is getting very low, very little was sold to-day.

WAX (BEES') continues to sell at full prices, especially the *Jamaica* variety, of which the latest arrivals are, however, slightly under the mark as regards quality. Orange mixed with red sold at 6*l.* 5*s.*; dark red partly mixed with black at 5*l.* 15*s.* to 5*l.* 7*s.* 6*d.*. Some very fine *Australian* bees'-wax, from Adelaide, even yellow colour, slightly mixed with black, fetched 6*l.* 5*s.* to 6*l.* 7*s.* 6*d.*; half yellow, half grey ditto (from Launceston), 5*l.* 17*s.* 6*d.*; chocolate and dark (from Freemantle), 5*l.* per cwt.

WAX (CARNAUBA)—An offer of 53*s.* per cwt. was declined for 20 bags very fine yellow wax.

WAX (JAPAN) is slowly declining in value. Good pale Hiogo slabs are not worth more than 48*s.* 6*d.* to 49*s.* per cwt., though nominally bought in at 50*s.* per cwt.

SHELLAC.—The increased demand which was observable last week has quite subsided, and transactions now are of the most meagre character. *TN second orange* on the spot is quoted at 45*s.* 6*d.* per cwt. From Calcutta we hear, under date of April 26, that the inquiry had quite died out, the market closing dull, and the enormous shipments of the current month exercising a most depressing effect on the article.

QUININE has been extremely quiet since our last report, and business has been done in *German* brands, in bulk, at 1*s.* 9*d.* per oz.

ACID (CITRIC) continues quiet, with buyers at 1*s.* 7½*d.*, and sellers at 1*s.* 7½*d.* per lb.

ACID (TARTARIC).—A fair business has been done in *foreign* brands at 1*s.* 6½*d.* per lb. *English* makes are quoted at 1*s.* 6½*d.* per lb.

PIMENTO.—At auction 850 bags sold at an advance of ½*d.*; ordinary grey and dusty at 2½*d.*; middling 2½*d.*, fair 2½*d.* to 2¾*d.*.

CASSIA LIGNEA.—In auction 912 bales broken sold without reserve at 18*s.* 6*d.* to 19*s.*, nearly 1*s.* 6*d.* lower.

ANISEED is improving, and stocks are gradually clearing. 24*s.* to 25*s.* 6*d.* per cwt. are the current prices for *Russian* seed; fine *Turkish* realises 30*s.*, and *Alicante* 60*s.* per cwt.

CANARYSEED has kept fairly steady. From New York discouraging reports keep coming in, and the late heavy arrivals seem to paralyse speculation, and bring business to a standstill. From the River Plate fresh arrivals are expected soon. We quote *Turkish* seed 43*s.* to 45*s.* 6*d.* per 464 lbs. ex warehouse. *Dutch* seed sells at 49*s.* to 50*s.* for small grained, and 53*s.* to 55*s.* for bold quality. *Morocco*, 50*s.* to 51*s.*; *Spanish*, 55*s.* to 59*s.*. A few parcels *English* seed came also to market, and realised from 42*s.* to 46*s.* 6*d.* per qr. imp.

CARAWAYSEED has been slow of sale. The prospects for the new Dutch crop are very fair so far. *Dutch* is sold at 32*s.* to 34*s.*. *Russian*, 27*s.* to 28*s.*. *Mogadore*, 27*s.* per cwt.

CUMINSEED firm at 45*s.* per cwt. for *Malta*, 25*s.* to 26*s.* for *Greek*, and 27*s.* for *East Indian*.

FENUGREEK SEED.—A better demand is springing up, and the stocks are getting very small; 8*l.* to 8½*l.* 10*s.* per ton is the price paid.

AMERICAN CABLEGRAM.

NEW YORK, May 19.

OIL OF PEPPERMINT.—The market is in a drooping condition, and there are no inquiries for the article.

QUININE.—Although prices are nominally unchanged, no business is practicable except at a decline.

YOUNG husband: Isn't there something peculiar about the taste of these onions, my dear?" Young wife (anxiously): "Oh, I hope not, dear. I took such pains with them; I even sprinkled them with jockey club before I put them to boil, to take away the unpleasant odour."

THE LONDON DRUG AUCTIONS, which were fixed to be held periodically about sixty years ago (having previously taken place without any regard to regularity), were originally started at Garraway's Coffee House, Change Alley, Cornhill, and remained located on the first floor of that establishment until the expiry of the ground lease, and up to within a very short time of the demolition of the building in 1870. A tablet on the wall of the new edifice indicates the spot upon which this celebrated and at times notorious resort formerly stood. By mutual agreement of a few of the leaders of the drug trade, the auctions were then removed to the London Commercial Sale Rooms in Mincing Lane; but this arrangement did not prove a success, complaint being made of the shape of the room allotted to the druggists and the inconvenient arrangement of the seats. The absence of ante-room accommodation of a suitable character and of a place for refreshments in sufficiently close proximity to the sale room were also standing grievances, and after a very short time another move was made, this time to the "New Corn Exchange Hotel and Tavern" in Mark Lane, where, after repeated trials and the shifting of rostrum, tables, and seats from one part of the room to another, the regulars finally settled down into something like shipshape. The druggists and brokers took up fixed positions after the same manner as at old Garraway's, and these places their successors for the most part continue to occupy. As a proof of the inherent conservatism of the drug trade, it may be mentioned that so small a matter as the recovery from the Hebrews of the antique and lumbering piece of furniture comprising the "rostrum," and of the original auctioneer's hammer of Garraway's, was hailed with lively satisfaction by the habitués of the drug sales, and reconciled them in no small degree to the change in location.



Memoranda for Correspondents.

Always send your proper name and address: we do not publish them unless you wish.

Write on one side of the paper only; write early; and devote a separate sheet of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Letters, queries, &c., not noticed in this issue will, if possible, be attended to next week.

Before writing for formulæ consult the last volume, if you have it.

The Minor Examination.

SIR,—The modern substitute for abusing one's opponent is to strangle him. My resolution on the subject of the examinations at the annual meeting yesterday did not chime in with the President's views, so the closure was invoked, and I was silenced.

I shall, therefore, be glad if you will allow me briefly to explain my reasons for introducing the subject, and for seeking to embody the views not only of myself but of many other members in the form of a motion.

I approach this question, sir, neither as a rejected candidate nor an angry parent, nor even as one of those unfortunate individuals described by the President yesterday as an "irregular teacher." I have no axe to grind in either of these directions. Several instances, however, have recently come under my notice, in which candidates, personally known to me as well-trained, intelligent young men, with more than average experience, have been rejected in their first subject (generally dispensing), and prohibited from going on with any other part of the examination. In other words, the Board of Examiners delegates to a single individual the discharge of a duty which, both by Act of Parliament and the Society's own bylaws, is a duty incumbent upon every member of the Board. I asked the President yesterday whether, if such a regulation were in force, it had been approved by the Council and published in accordance with clause 11, Section X. of the bylaws. The President replied that the system was not a "regulation," but it was an "established practice." If this is intended to be anything more than a verbal distinction, the difference must lie in the fact that one is authorised and legal, and the other unauthorised and illegal.

At yesterday's meeting I observed that the President, as well as one of the other speakers, very skillfully trailed more than one red herring across the path of discussion. It was argued that, since a candidate who fails in one subject fails in the whole examination, it is useless for him to attempt the remainder, especially as by so doing he is putting the examiners to unnecessary trouble, and taking up time for no useful purpose. I need hardly point out that this argument is entirely beside the question. My contention is that the sixth section of the Pharmacy Act, as well as the 11th and 12th clauses of Section X. of the bylaws, can only be read in one way, and that interpretation could not be expressed more clearly than in the words of the bylaw itself:—

"All persons who shall tender themselves to the examiners for examination in accordance with the Charter and the Statute, 1852 . . . shall be examined in the translation and dispensing of prescriptions, in Botany, in Materia Medica, in Pharmaceutical and General Chemistry, the Chemistry of Poisons, and Posology, which examination shall be called the Minor Examination.

No amount of bemoaning over the examiner's trouble and waste of time (as if forsooth the Board was a Charity Organisation Society of unpaid philanthropists) can go behind the wording of that bylaw.

If the Council of the Society is of opinion that the qualifications of a candidate who comes up to be examined in six subjects can be fairly and satisfactorily determined by one examiner in one subject, by all means let the sixth section of the Pharmacy Act be repealed, and a new bylaw be enacted for that purpose. The examiners will then be empowered to do what is unjust, but nevertheless legal. The present "practice" is, in my humble judgment, both unjust and illegal.

North London Chemical Works,
May 19,

Yours faithfully,
FRED. W. FLETCHER.

Linimentum Terebinthinæ.

SIR,—In your issue for April 30 Mr. Perry, I see, has been keeping my especial friend to the front, and in the discussion that followed the reading of his paper, Mr. Alcock refers to my conviction, after I first drew attention to the unsatisfactory results in preparing this liniment, that more water should be added. This I have since found to be very unnecessary; in fact, with almost any soap and turpentine, I can now turn out a thick or thin emulsion just as is required, and in many cases I can also produce, with the same samples, a compact jelly, thus showing it is a matter of manipulation, the chief point being shape of mortar compared with contour of the pestle head, and the manner and quantity in which the turpentine is added. I wrote to the *Pharmaceutical Journal*, asking for an authoritative statement as to the appearance this preparation should present as settled by the Pharmacopœia Committee. Nothing came of this. I was, however, determined, and wrote to Dr. Quain (Chairman of the Pharmacopœia Committee), and had a kind note in return saying my wish should be granted, and that "Professor Redwood will make a communication to the next meeting of the Pharmaceutical Society, which will satisfy all dispensers, &c., as to what the official article should look like." In due course the professor did give us a dissertation on soft soap, &c., but he was not very clear as to the liniment.

In making large quantities where one of the many forms of emulsion machines is used, or where the ingredients are vigorously whisked together, the product will be almost invariably a jelly, but when made by rotation in a mortar with a flattish pestle, one can turn it out in either form, as I have stated above. (A pestle such as Professor Redwood describes certainly is of importance.) I do not agree with Mr. Perry that a permanent emulsion cannot be made from the form in the B.P. as it stands. Eight months ago I made a lot, and I have about an ounce left; I enclose half of it to you, and half I send to Mr. Alcock. It has never shown the slightest inclination to separate (it is sample A). I have also by me an ounce of a sample sent me by Mr. Heaton, of Forest Hill, some months back. That too is permanent, and both were made strictly B.P., and both have been *undisturbed until to-day*.

Lately, I have been experimenting with the same soap as Mr. Perry—namely, that supplied by the Chiswick Company for B.P., and guaranteed to be a pure olive-oil soap—and with an American turpentine, whose source is P. Australis and boiling-point 316° Fahr.; and I am sending samples of my result to Mr. Alcock (sample B). I have received from the same firm samples of a pure olive oil which is of a deep green colour; they positively affirm that the colour is natural. I have not examined the oil save by taste and otherwise physically; also a sample of *sapo mollis* made from it (samples S and O). Mr. Perry's suggestion, I have found, gives good results, but, unlike his, mine at the end of one week have not separated at all. I send samples made according to his 2 and 4 (samples D and E). But if he holds the water to be so unnecessary, why did he not go a step further and try no water at all? I have done so, and send a sample (C). Mr. Alcock is quite right about water being found in *sapo mollis* in variable quantities. Mr. Perry's form is not that of London, for many of the leading houses will only send it out as a jelly, and it is on this account that I think there should be a definite understanding, and I propose that this should be effected in next edition of B.P. by inserting in the formula for lin. tereb., after the words

"together until," the following, "become a thick creamy emulsion that can be poured from a bottle"—similar to the statement made under *Linimentum Ammoniae*. The oil globules of the well-made permanent jelly form are notably smaller under the microscope than those of the "thick creamy" type, however. I sincerely hope this matter may soon be laid at rest.

Yours truly,
Bromley, Kent, May 10. WM. BAXTER, Jnr., M.P.S.

Cane and Beet Sugar.

SIR,—I noticed in your last week's issue a letter asking for a test by which cane may be distinguished from beet sugar. In highly-refined samples there is no test by which they can be distinguished. Even sugar experts have here to acknowledge themselves baffled. In the lower qualities, however, the distinction is easy. Cane sugar has a full and pleasant odour, quite distinct from the acrid and unpleasant smell of that made from the beet.

Fehling's solution cannot be relied on as a test for beet sugar. In order that it might be of any service, it would be necessary to prove that beet sugar always contains more glucose than cane sugar. All the experiments which I have made in this direction, however, prove that the contrary is the case; this, moreover, is what we might naturally expect, for the beet-juice contains less glucose than cane-juice.

I would again reiterate the opinion which I expressed two years ago in a paper published in the *Pharmaceutical Journal* for February 28, 1885, that some of the most suitable sugar for pharmaceutical purposes at present in the market is made from the beet.

If the two sugars be chemically identical—which is everywhere acknowledged—and if they both be so highly refined as to be practically pure, then nothing but prejudice can justify the rejection of one in favour of the other.

The great source of fermentation and deposits in syrups is the large proportion of glucose present in many sugars. I have it from one of the largest refiners in this country that the same brand of sugar is sometimes made from cane and sometimes from beet, the source being determined by the relative values of the crude articles.

I am, sir, yours faithfully,

Sheffield, May 8.

G. A. GRIERSON.

The Proposed Monthly Drug Sales.

SIR,—Had the majority of those gentlemen who write you in reply to my letter thought it necessary to allude to my anonymity—as two of your correspondents have done—I might have felt "sat upon," but as the publication of my name might have been regarded as an advertisement by a larger number, I feel compelled to swallow the censure of the minority. I cannot, however, permit the remark, "If your anonymous correspondent has the courage of his opinions, why does he not openly sign his name, that others may be able to judge whether his opinion is worth anything or not?" to pass without observing that the sentence does not apply, for the obvious reason that in my letter I gave no personal "opinion," but stated facts, hence a judgment on my opinion was not courted.

Allow me to draw attention to a coincidence of a singular kind, viz., that a firm of wholesale druggists have given their word "to the leading brokers that they would let the matter rest for awhile, and, because of this, they are compelled for the present to remain silent on the subject," whilst the largest brokers in the drug trade say "we are not aware of any proposal for monthly drug sales."

I find that of the fourteen correspondents on the subject in your this week's issue, there are six who appear to be in favour of the proposed alteration, six who have not made up their minds, or are indifferent, and two who are against it. Of the two correspondents who object to the change, one disapproves on a statement of his own, that such an alteration "would be injurious, not to say disastrous." I am glad he falls short of the latter, but am sorry he does not explain the shape the injury would assume; the other "does not approve because he thinks it would be impracticable." Of course this is unanswerable, being equivalent to "I think so and so because I do."

Of those correspondents who have not made up their

minds, one remarks that "monthly sales would leave us for a long time without any really sound criterion as to absolute market values." This might possibly be so if all descriptions of goods appeared in every sale, but as this is not the case, there is no such criterion now as to the absolute values of such goods as are only offered occasionally.

Other questions are not of a nature to call for further observation from me, but can best be dealt with by a committee formed of brokers, importers, and druggists interested in the sales.

I am glad to observe that the suggestion which I brought forward has, on the whole, been well received by the trade.

Yours faithfully,

DRUG BROKER. (101/74.)

Election Dodging.

SIR,—It is not my intention to satisfy the anxious queries of your correspondent who styles himself "Luke Intuit," but to protest against his lack of courtesy and the absence of that *esprit de corps* which ought to exist between brother-chemists. It would be well in future if "Luke Intuit" would act up to his *nom de plume*, and make sure that he is acquainted with the subject he deals with, before "springing" a letter upon the trade similar to his last attempt. He evidently knows nothing whatever about the Leicester Chemists' Association. Its committee consists (with one exception) of fully-qualified chemists, four of whom are pharmaceutical chemists. The class teachers, too, are all qualified chemists, and our worthy secretary, also, who would be glad, I am sure, to retire from the post to make way for "Luke Intuit's" apparent ability. As a young member of the Association in question I feel compelled to record my indebtedness (I speak for others also) to our indefatigable secretary, who has stood by the Association in darker days most gallantly, and who now enjoys the consciousness of being in brighter days, as far as the Association is concerned—a fact which seems to have aroused the latent jealousy of "Luke Intuit's" nature. Our Association is open to all chemists in Leicester town and county who pay the fee, and if any have not joined (including "Luke Intuit") it is their own fault entirely. As to the advocacy of our President's election I say nothing, since your correspondent's letter only seems to be directed to the detriment of our Association, which letter will doubtless prove to be *telum imbellis sine ictu*.

I am, yours faithfully,

36 Waterloo Street, Leicester, May 17. JOHN DAVIS.

Glycerine and Cucumber.

SIR,—Will "Phoenix" kindly say what soap he used for the above emulsion. I have used Whitaker and Grossmith's white glycerine soap, but always find that the resulting emulsion invariably separates in from three days to four weeks. When first made, the emulsion is too gelatinous, although in other respects it seems satisfactory; but the fatal separation has caused many complaints, and I should be glad of any hints that would help me over my difficulty. The separation is evidently accompanied by decomposition.

A wholesale house is now offering a nice preparation to the trade; can anyone give me the formula for this? I have heard it is borax, rose and elder-flower water, with almond oil.

Faithfully yours,

PEPO. (98/28.)

Trade Titles.

SIR,—I noticed some short time back that Messrs. Perry Davis & Co. are seeking to claim the sole right to the title of the words "Pain Killer," and the solicitor employed on their behalf stated that chemists, when asked for pain killer, would understand customers to mean Perry Davis's preparation in particular. Such a statement is certainly contrary to facts. I have sold a pain killer for nearly twenty years, and have printed testimonials from customers ten years back. Seeing that Messrs. Perry Davis & Co. only registered the name five years ago, I fail to see how they can establish any claim as originators of it.

Yours truly,

VERITAS.

DISPENSING NOTES.

[The opinion of practical readers is invited on subjects discussed under this heading.]

Hydrocyanic Acid in Mixtures—A Reminder.

SIR,—Whilst reading the replies of your esteemed correspondent "Heder" and others to "J. T. H.," I was struck with the neglect shown in each instance to the order in which the hydrocyanic acid should be added. For fully twenty-five years it has been my fixed rule to add the acid last, the bottle being previously filled up, and just enough room left for the acid, and corked immediately that is done. I had practised this rule before the reason for so doing had dawned upon me, viz., the exceedingly volatile nature of the acid. An article written by, I believe, Dr. Attfield, a long while ago, gave the result of experiments on the subject, and showed that if a drachm of the acid were poured into an empty bottle, and the bottle then filled with water from a wide-mouth bottle, there would be traces of the acid in the water-bottle, but scarcely a trace in the one in which the acid had been placed. I have been astonished frequently by the thoughtlessness of very able assistants on this subject, and the difficulty I have found in making them observe my instructions, both in keeping the acid-bottle upside down, and always putting it in last.

Wigan, May 12.

Yours truly,

J. PHIL LIPS.

[The statement which our correspondent attributes to Dr. Attfield is probably somewhat exaggerated, but the rule of reserving the hydrocyanic acid until the last is a valuable one, and is generally observed.]

The Cerium Oxalate Mixture.

Mr. Alf. C. Smith (Liverpool) sends us a mixture compounded on April 30. He has succeeded in getting the mixture into an 8-oz. bottle, and it shows no sign of decomposition such as was referred to by "J. T. H." last week.

SIR,—"J. T. H.'s" letter in your last starts a different question from his first one. I made up his formula, and certainly had no "brisk effervescence," or any other unpleasant symptom, although the mixture was kept on the counter for two or three days.

Yours truly,

HEDER.

[Our results agree with the above.]

An Epsom Salts Mixture.

SIR,—Would you give the best way of dispensing the following, as I have tried several and found that it always separates:—

Magnes. sulph.	..	..	..	..	3vj.
Ext. casc r. sagrad.	..	..	..	..	3iij.
Aq. bull. ad	..	..	..	..	3xij.

M. Ft. mist.

Yours truly,

Whitby, May 14.

N. COONEY.

[There is not sufficient water in this mixture to form a solution. The only plan is to rub the salts to fine powder and mix with the liquids, using cold water.]

Dialysed Iron in Mixture.

SIR,—It is a mystery to me how "Dolor" obtained his mixtures that did not separate. Perhaps his vin. pepsin. was acidulated with acid. hydrochlor., which is the only explanation I can offer. I have used Wyeth's solution, D. & F.'s ether, wine made from Hearon's pepsine; and the mixture separates on standing. One of our physicians values Wyeth's iron very highly. It never disagrees with the most delicate stomach, in his experience; but the ordinary English liquors are liable to disturb the digestive functions.

Yours truly,

HEDER.

LEGAL QUERIES.

68/103. *H. J. M.*—A limited company can under the existing law carry on a chemist's business, whether any or all or none of its shareholders are qualified. Such company may, or may not, employ a qualified assistant, and the assistant may or may not be a shareholder. But any unqualified person selling a scheduled poison is personally liable to a fine.

2/103. *Alpha.*—A limited company cannot consist of less than seven persons. For the rest of your question see answer to "H. J. M."

10/104. *T. B. J. B.*—We cannot say whether your correspondent has acquired by registration any such rights as would enable him to stop the sale of the perfume under the title indicated. But even in the unlikely event of his having such rights, we do not see how he could prevent the sale of an alleged formula for such a perfume.

R. Wright (Buxton).—The decisions given by the Board of Inland Revenue in relation to the labels are in perfect accordance with the principles laid down by the Board on many occasions. If you will study the memorandum on the Medicine Stamp Act, drawn up by the Trade Association, and approved by the Board, which you will find in *THE CHEMIST AND DRUGGIST*, January 22, 1887, you will perceive the grounds for all the decisions.

MISCELLANEOUS INQUIRIES.

98/32. *F. Capern.*—You cannot make a preparation the same as *Anti-Calcaire*, because it is patented. A powder which is effective in softening water is made with slaked lime 1 part, and dried carbonate of soda 2 parts, both in fine powder, and mixed. *Anti-Calcaire* is said to contain alum.

98/49. *R. H.*—The "Enterprise" press is the most useful in small pharmacies. See the "Art of Pharmacy" for general recommendations.

100/51. *W. H. Tunley.*—*Unguentum Cocainæ.*—Martindale gives the strength as 1 to 30 of lard, or "more or less, if ordered."

100/63. *A. S.*—*Preserving Botanical Specimens.*—The requisites are two flat boards, 2 ft. by 1½ ft., a supply of drying paper (grey filtering-paper in sheets), several heavy weights (stones will serve the purpose), tragacanth paste, and cartridge paper. The first thing after you have brought the plants home is to dry them without delay. To do this place one board on the floor with several sheets of paper upon it; then carefully spread out a specimen, keeping down with small pieces of drying paper and light weights any leaves or flowers which have a tendency to spring up from their position. When the whole is carefully spread out, place another sheet of paper over the specimen, starting from the bottom and removing weights as you go along. Add other three or four sheets of paper to the pile, then arrange other specimens in the same way, with thick pads of paper between if the stems are thick. Finally, place the second board on the top, and load it with weights. Change the paper daily, drying the damp sheets before the fire. In a week or ten days the specimens will be ready for mounting. Cartridge paper is best for mounting purposes; it should measure 18 in. by 12 in. *Tragacanth Paste.*—This is an excellent mounting medium. The following is the formula:—

Powdered tragacanth...	...	...	...	3vj.
" acacia	...	...	...	3iv.
Glycerine	...	...	...	3iij.
Water	...	...	...	3vj.
Perchloride of mercury	...	...	...	gr. xij.
Mix in a mortar, and add with dexterous stirring—				
Boiling water	...	...	...	3vj.
Oil of cloves	...	...	...	gtt. x.

The oil to be added before the paste becomes cold.

Spread a thin layer of this paste upon a board, place a specimen dexterously upon it, touching delicate parts with the forceps, then lift by grasping the strongest part of the stem with the forceps, and transfer to the cartridge paper. The specimen is now to be treated as if you were drying it, and placed under the press for a day. Finally, the thick parts should be rendered secure by pasting a piece of muslin on the back, and sewing the stems with a strong linen thread.

99/61. *J. Ellis*.—Instead of the tannic acid which you use to intensify the logwood ink, use 4 oz. of bruised galls to the gallon.

97/38. *Cascara*.—A formula for the Hectograph Compound is given on page 431 (April 2).

101/2. *Nectar*.—You will find full information regarding Medical Examinations in our last Educational Number, September 18, 1886.

Liquor Opii Sedativus.

Fer writes regarding the formula for this preparation given in our issue of November 6, 1886, page 632:—"I have to thank you for this reply to my application for help in a difficulty. Unfortunately, I have had to use the last of batch made, or I should have sent sample now. With certain modifications (which are given in the formula below) I have got a product which was unique, and justifies me saying the idea in freeing it from narcotine and excess of meconic acid is thoroughly practical. Under the microscope it gave a flock of crystals more resembling Battley's than any I have ever tried from wholesale houses, or from the official liquid extract." The formula as modified by *Fer* is as follows:—

Opium (10 per cent.)	..	..	..	2 oz.
Slaked lime (purified)	..	..	..	2 drachms
Rectified spirit	..	..	..	5 oz.
Finest sherry	..	..	..	1 "
Water	..	..	..	q.s.

Boil the opium (in small pieces) with the lime and 15 oz. water for half an hour, then allow to cool. Make up to 14 oz. with water, add the spirit and sherry, and set aside for a week; filter, press the marc, and add proof spirit to make 20 fluid oz. Set aside for six months, to allow the liquor to "improve."

101/14. *R. B.*—A formula for cement was given on page 543 (April 30). For gelatine use isinglass.

98/57. *Chlorodyne*.—(1) If a candidate fail in the Minor or Major examinations he must go through the whole subjects again, no matter how proficient he previously showed himself to be. (2) The fruit which you send is a hickory nut. (3) A dessert spoonful is considered the proper rendering of the expression 3ij. Some prefer to say two teaspoonfuls, as a teaspoon is generally nearer 5j. capacity than a dessert spoon is near 3ij.

101/29. *C. D.*—An indiarubber stamp may be used with the ink for which we gave a formula on May 7; but the acacia in it should be replaced by 3 oz. of glycerine. Place the ink on a pad.

99/22. *Blackburn*.—The permanganate process of Bleaching Sponges is undoubtedly the best, and is the one adopted by the principal sponge houses. The bleaching bath is made of 2 drachms of permanganate of potash and 1 oz. of sulphuric acid to a gallon of water, and the finishing bath of 4 oz. of carbonate of potash to the gallon of water. First free the sponges from sand and wash them thoroughly with water, then dip in the bleaching bath until they acquire a pale colour. Wash thoroughly with water, then immerse in the finishing bath until they acquire the golden or saffron colour which is popular at present. Finally wash well and dry.

99/35.—*Cocaine Hydrochlor*.—Your question has no pharmaceutical interest.

101/70. *J. D.*—Labels on Tin.—Add 20 drops of liq. antimon. chlor. to each oz. of mucilage.

101/43. *A. S.*—Hair Dye (in two bottles).—No. 1—Nitrate of silver, 3j.; strong solution of ammonia, q.s.; water to 3ij. Dissolve the silver nitrate in an ounce of water, and add ammonia solution until the precipitate at first formed is redissolved, then make up to 2 oz. with water. No. 2—Pyrogalllic acid, gr. 30; sulphite of soda, gr. 10; S. V. R., 3ss.; water, 3iss. Dissolve. Hair Restorer.—Milk of sulphur, 3iiss.; acetate of lead, 3j.; glycerine, 3ss.; ess. white rose, 3ss.; water to 3viii. Mix the powders in a mortar with the glycerine, and slowly add the water and perfume.

101/13. *W. H. Madden*.—Florida Water.—In the formula given on April 23, read eau de cologne, rectified spirit, and water, of each half a gallon. With these and magnesia a perfectly clear solution of the oil is obtained. We have also published the following:—Oil of bergamott, 3v.; oil of lemon, 3j.; oil of cloves, 5j.; oil of lavender, m 80; rectified spirit, 80 oz.; water, 16 oz. Mix the oils and spirit, and add the water after two days.

J. J. F. tells us of a patient in the Glasgow Infirmary who complained, "Oh, doctor, dear, it's a turble thing when the bowels tak' to the heed." He says, Can any reader tell what is meant by the expression? Two medical friends have told him that they had heard it in Glasgow at different times.

93/61. *Vaseline*.—You will find a formula for Black Ink without galls on page 306, March 5.

101/58. *P. V.*—(1) Try the formula given on page 543 (April 30). (2) The Cucumber Cream should be about the thickness of ammonia liniment. It varies according to the manipulation. (3) Pil. aloes et ferri is a good female pill. See also page 515 of THE CHEMIST AND DRUGGIST, April 23. (4) We cannot say what the peculiar odour of the perfume is.

102/13. *W. J. D.*—Muspratt's "Chemistry" is published by Mackenzie in eight volumes, at 10s. 6d. per volume. We can give you no further information on the other subjects.

100/50. *Lipsalve*.—See page 155, January 29.

101/51. *J. E. C.* (Barbadoes).—You will find a number of formulæ for Eau de Cologne if you search back volumes. Here is another:—

Oil of lavender	..	..	..	3j.
Oil of neroli	..	..	..	3ij.
Oil of lemon	..	..	..	3iss.
Oil of bergamott	..	..	..	3iij.
Otto of rose	..	..	..	3 drops
Musk	..	..	..	2 grains
One Tonquin bean, powdered	..	..	..	..
Gum benzoin	..	..	..	20 grains
Rectified spirit	..	..	..	40 oz.

Digest two days, then add 2 drachms of light carbonate of magnesia and 2 oz. of orange-flower water, and set aside for at least a week. Filter.

The "Art of Pharmacy," which was published as the special treatise of our DIARY for this year, is out of print.

101/64. *J. Paterson*.—You may dissolve the ext. cannab. ind. and salicylic acid of the corn cure in the ether and spirit of the collodion, and add the gun-cotton and other ingredients after you have got a clear solution. Do this in a closed bottle, of course.

101/73. *C. J. P.*—Eau de Cologne Dentifrice.—This may be made with tincture of quillaia (1 in 5). Thus:—

Salicylic acid	3ij.
Tincture of quillaia	3ij.
Eau de Cologne	3iij.
Glycerine	3j.
Orange-flower water	3vij.
Distilled water	3vij.

Mix, shake up with powdered pumice until clear, and filter.

97/60. *Student.*—You must tell us what kind of sheep dip you are in want of. Stockholm tar may be an ingredient in some kinds of dip.

100/54. *Attraction.*—Fruit Syrups are made with the natural juices, or from artificial essences. In both cases very little alcohol is used, an ounce of rectified spirit to the pound of juice being sufficient, along with 2 lbs. of sugar, and a pinch of salicylic acid, to keep the syrups. Artificial essences make good syrups. The essence and sufficient colouring matter are added to thick simple syrup. You should buy infant's food in bulk, as it cannot be made conveniently on the small scale. See the advertisement in our issue of May 7, page 20. Several printers advertise in this journal, please write to them for quotations.

95/24. *J. S.*—The new Plate Powder of which you send us a sample is one which we have frequently recommended. It is composed of precipitated chalk and a little heavy carbonate of magnesia, say 2 oz. of the latter to 1 lb. of the former.

100/4. *Lindeem.*—It is probable that the precipitate which you have found in the Liq. Hydrarg. Perchlor. is sal alembroth. "Attfield" gives full directions for the examination of inorganic substances. See the Analytical Chart for Metals, and what is said about the examination of substances insoluble in acids.

Use a mixture of violet powder and boracic acid for Tender Feet, and bathe frequently in a bay-salt or alum bath.

100/1. *Ol. Limonis.*—Try the following:—

Acid. nit. hydrochlor. dil.	3j.
Spirit. chloroformi	3iss.
Tinct. zingiberis	3iss.
Tinct. gentianae comp.	3iij.
Aque ad	3xx.

Mix, and filter. Colour with cochineal if necessary.

This will suit your label for "Indigestion and Stomach Mixture, for the relief of heartburn, flatulency, swelling and fullness after eating, biliousness, &c. Dose: One tablespoonful, three times a day."

29/93. *Sousa (Turin).*—Terpinol.—This is prepared from terpin. First, prepare the latter by shaking together occasionally for a day or two 8 parts of turpentine, 2 parts of nitric acid (sp. gr. 1.25), and one part of alcohol. Then allow to evaporate. Dissolve the crystals in as small a quantity as possible of boiling water, filter and allow to crystallise. Dissolve the crystals in water; add their own weight of hydrochloric acid, and boil. Terpinol is formed, and separates out as an oil. Free this from the water, and purify by distillation, if necessary.

98/55. *Scrutator.*—The specimen which you send has been identified by the Curator of the Pharmaceutical Society's Museum as *Canchalagua (Erythraea chilensis, N. O. Gentianaceae)*. Leeman says the name is applied to various gentianads in Panama. Decandolle gives *E. chilensis* as synonymous with *E. cachaalagua*, Roem. et Sel., which appears to be the native name of the plant, which the Spaniards have corrupted into canchalagua. In Mexico and other parts of America the flowers are used as a bitter tonic and stomachic, in doses of 15 to 30 grammes, as an infusion in half a litre of water.

Books.

102/32. *Nemo (Taunton).*—The last edition of Attfield's "Chemistry" contains new matter in relation to the British Pharmacopoeia, 1885, which you might find it useful to have. The edition which you have contains enough for your purpose. Balfour's "Elementary Botany," or Silver's "Botany," will suit for the Hall examination. But you should have a lot of field practice.

102/33. *Fritz.*—The popular ink which you mention is made by experts, who are careful regarding the selection of the materials they use, and know what to do when anything goes wrong. Obviously we cannot attempt to convey that knowledge. We do not have a formula for dandelion and malt coffee. Moreover, combinations of malt to be used as coffee are protected by patent.

102/49. *Hospital (Dublin).*—Permanganate of potash is probably the pink colour used by hospitals for liq. hydrarg. perchlor. used as a dressing.

102/23. *S. J. N. T.*—The cheap baking powder which you refer to is probably made with acid sulphate of potash (tartaralime); 3 oz. of it are equivalent in saturating power to 4 oz. of cream of tartar. Try the following:—

Acid sulphate of potash	6 oz.
Bicarbonate of soda	8 "
Rice-flour	1 lb.
Essence of lemon	℥x.

Mix.

"Assistant," "Subscriber's Assistant," "A Minor Man," "Theobromine," and "C. J." are reminded that we do not reply to anonymous inquiries.

INDIAN PLASTER.—Under this name a German pharmacist has introduced a plaster which is composed of lead plaster and Peruvian balsam.

THE IMPERIAL INSTITUTE.—Among the contributions to the Imperial Institute announced during the past week is one from Messrs. Morgan Brothers (proprietors of THE CHEMIST AND DRUGGIST) for 200l.

MORE COMPETITION.—Menthol cones have been selling in the streets during the past week or two, put up in very fair style, first at 2d., then at 1½d., and lastly at 1d. each. On making a purchase we asked the itinerant merchant whose goods they were, and were promptly informed that they came from Thomas Christy & Co., the wholesale druggists in Lime Street.

CASTOR-BEAN CULTURE IN ILLINOIS.—The cultivation of the castor bean is rapidly extending in the United States, particularly so in Southern Illinois, where farmers have taken to it as a better-paying article than wheat, of which the crops have frequently been failures lately. It is said that the castor-bean acreage in southern Illinois is now over 20,000, Jefferson and Franklin counties being the centres of production. Some years ago the state of Kansas was visited by an insect plague, which destroyed all crops and caused the Kansas farmers to take to castor-bean farming as an alternative. This competition brought down the price of the beans to 70 cents per bushel, at which the industry became unremunerative to the Illinois farmers, who cannot, it is said, make a paying thing out of the castor bean at less than \$1.25 per bushel. At this juncture the proprietors of an oil-works came to the rescue of the threatened industry and offered to furnish the farmers with seed, and to make a contract for the product of the entire crop. They established agencies all over the district, and sent out seed by the thousand bushels. The bean-raisers paid for the seed, and when the crop was ready for the market the whole of it was taken at a uniform price per bushel, which was stipulated in the contract. Last year nearly the entire crop of southern Illinois was contracted by this firm at \$1.40 per bushel.

DR. LINCK'S GENUINE MALT EXTRACT,

CONDENSED IN VACUO,

Prepared by M. KOCH & CO., Successors to Dr. Linck & Co., Stuttgart, Germany. (Established 1864.)
This carefully-prepared Malt Extract is well known on the Continent, and recommended by the highest medical authorities in cases of Debility and Emaciation, in Diseases of Children with Consumptive Symptoms, Chronic Cough, &c.

Sole Consignees for the United Kingdom—**H. POTHS & CO., 4 Creechurch Lane, Leadenhall Street (Late Sugarloaf Court).**
Sold in Bottles—Retail Price, 2/ each; Wholesale, 19/ per dozen.

LEUBE-ROSENTHAL'S IMPROVED MEAT SOLUTION,

Prepared by R. STUETZ, Chemist, Successor to Dr. MIRUS, Jena, Germany.

This carefully-prepared Meat Solution contains the real stimulating, and nourishing constituents of the best quality of beef, freed of fat and sinews. Owing to its high degree of digestibility, it is of the greatest value to persons suffering from stomach and nervous complaints, to delicate children, convalescents, etc. It is at the same time exceedingly appetising, and totally devoid of that objectionable nauseous taste so common in most of the Meat Preparations.

It is warmly and solely recommended by Professor Lenbe. See "Sammlung Clinischer Vorträge" of R. Volkmann, in Dr. Wiel's "Tisch für Magenkranken," and in Professor Reclam's "Gesundheit" (Zeitschrift für Hygiene), No. 14, vii., 1882, under the title "Newest Nourishments." Professor Reclam also has had great success with it in cases of debility of persons of all ages. This Preparation has been for some time, and is still, in use at the German Hospital, Dalston.

Sole Agents for England—**H. POTHS & CO., 4 Creechurch Lane, Leadenhall Street (late Sugarloaf Court).**
Sold in $\frac{1}{2}$ -lb. Tins. Retail Price, 2/ each; Wholesale, 17/ per dozen.



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WITH VITRIFIED (burnt in) LABELS

(Black Letters on a ground of Pink or White Enamel).

Labels indestructible and of elegant appearance, forming an even surface with the glass or porcelain. The Jars of best porcelain, thoroughly greaseproof. The Bottles hand-made and of superior quality. Both are unsurpassed by anything in the market in every respect. Also a CHEAPER sort of Bottles and Jars, with labels equally indestructible, but very plain, especially suitable for Dispensaries, &c. Intending Buyers are requested to inspect Samples at

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A large number of Shops have been fitted up with these Bottles and Jars, both in England and the Colonies, a list of which can be had on application.

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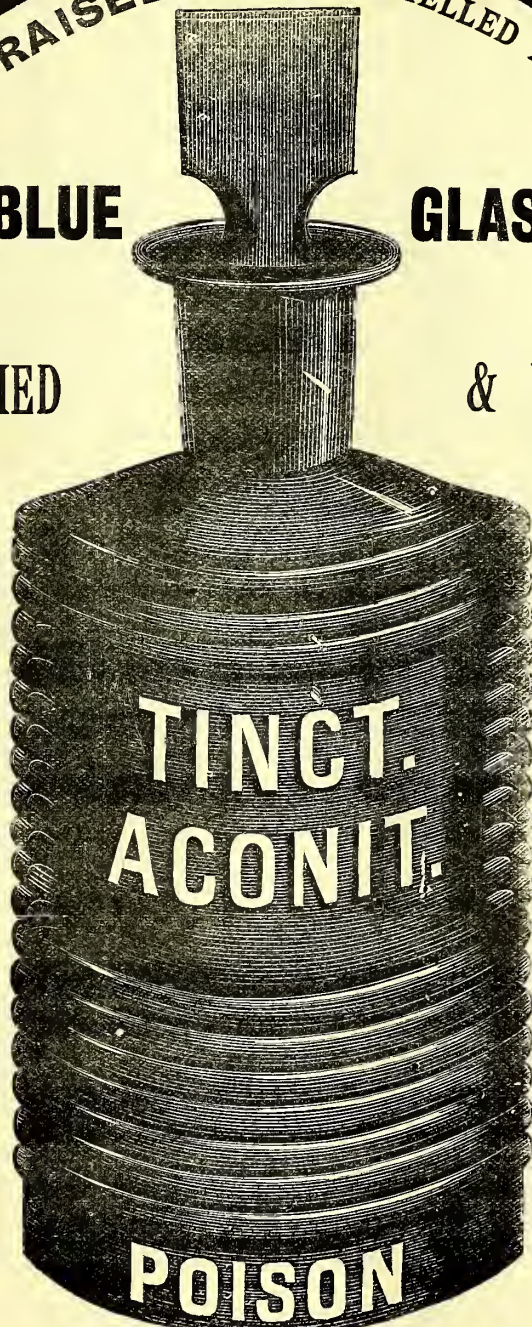
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WITH RAISED WHITE ENAMELLED LETTERS.

IN BLUE GLASS.

NARROW MOUTHED

& WIDE MOUTHED.



10-oz.

ACTUAL SIZE.

THE WORD "POISON" ON BOTTLE IS IN RED.

H. POTHS & CO. have just issued a new Standard List of Labels for Druggists' Bottles, Jars, and Drawers, which will be found very convenient to intending purchasers. It will be sent free on receipt of business card to members of the trade.

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SEE ADVERTISEMENT FACING LITERARY.

E. A. HEARN & CO., late HEARN, RIDDELL & CO., **GLASS BOTTLE MANUFACTURERS,** 381 to 383 KINGSLAND ROAD, LONDON, E.



Glass Bottles of every description, either Plain or Stoppered, made in White, Blue, Amber, Actinic Green, or any other colour required. Screw Nickel Capped Pomades, Honey Pots, Jelly Jars, &c., &c.

Makers of Opal Glass Covered Pots, in all sizes, which are **CHEAPER** and far more Handsome than Earthenware.



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Special Attention given to Quality. Quotations Post Free to any part of the world on application. The above will be found the **BEST** and **CHEAPEST** HOUSE in the **TRADE**.



THE HEART SCENT BOTTLE

FOR SALTS

REGISTERED

FOR PERFUME

Is most admirably adapted for pocket use, combining great beauty of design with the maximum of convenience.

A LONG DESIRED REMEDY.

The Caps for these Bottles will be fitted with Patent Indestructible Washers, which entirely resist the action of Ammonia, thereby effectually preventing the corrosion of the Cork and the inevitable deterioration of the Salts.

Prices as follows, Plain or Fluted:—**WHITE**, 21/- per gross; **COLOURED**, 24/- per gross. If put up in Dozen Boxes, 1s. 6d. per gross extra.

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DISPENSING BOTTLES AND PHIALS.

Special attention is called to our "New Crystal Blue Tinted," being handsome colour and clear glass. We supply them, 3 and 4 oz., 8/-; 6 and 8 oz., 9/- per gross. A sample bottle forwarded on application.

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Established upwards of 50 years.

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VAN
BOXES,



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&c.,

Invite the attention of Home and Foreign Buyers to the following kinds that they manufacture:—

MINERAL WATER BOTTLES, FOR CORKS,
AND STOPPERS (BULBS, EBONITES, CODD'S, &c.)

DISPENSING & FEEDING BOTTLES ALL SHAPES AND SIZES LARGE VARIETY OF STYLES.

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BEER BOTTLES, for Corks and Screw Stoppers.

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AND MANY OTHER KINDS.

These Goods are strong and well made, and are favourably known in all the Principal Markets of the world. Prices are very low, and buyers are invited to correspond.

Illustrated Catalogues and Price Lists contain full particulars of above, and will be sent free on application.

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LONDON.**

IMPROVEMENT IN FEEDING BOTTLES.



SAVARS

BOXWOOD SCREW



FEEDING BOTTLES

(LAYCOCK'S PATENT).

We have much pleasure in informing the Trade that we have completed arrangements with the Patentee for the **SOLE** use of his Patent for **SAVARS** Feeders. The Screw Stopper, instead of being Glass, is solid Boxwood, and will neither swell nor warp, and the improvement is obvious.

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- No. 7b. (SAVARS) White Bent Flint Glass, Boxwood Screw-neck Bottle, **BLACK** India-rubber Fittings and Earthenware Unions, Seamless Teat, with Bottle and Tube Brush complete, each in a neatly Labelled Box, 1s. retail; 8s. per dozen.
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SPECIAL QUOTATIONS TO BUYERS OF QUANTITY OF
ANY DESCRIPTION OF FEEDING BOTTLE.

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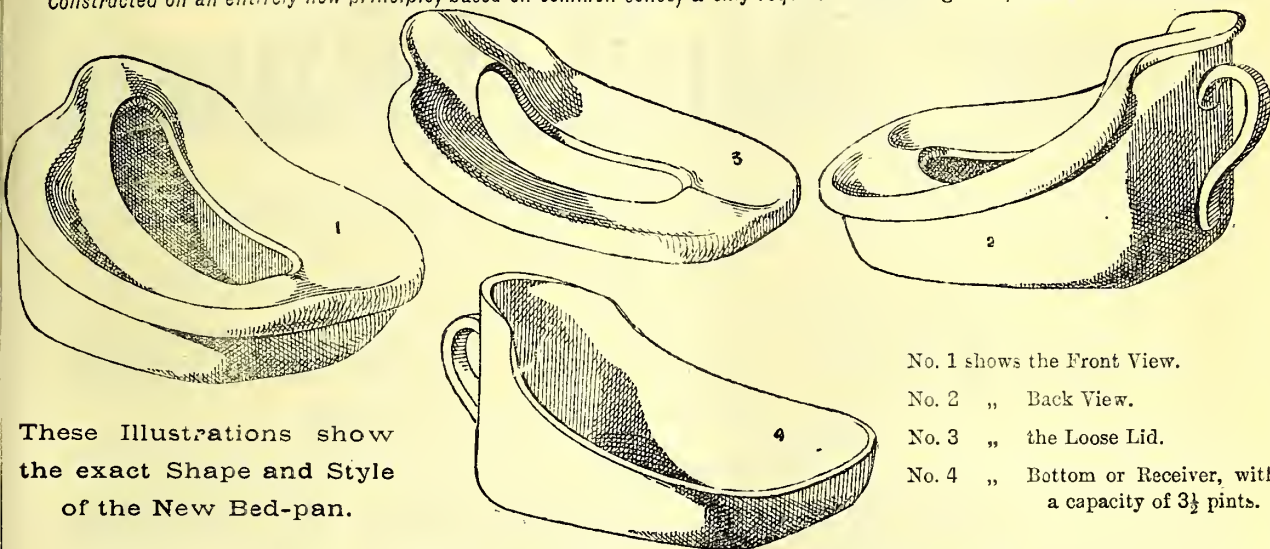
60 BARTHOLOMEW CLOSE.

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THE NEW SANITARY ANATOMICAL BED-PAN.

(DR. FORSHAW'S PATENT.)

GLAZED WHITE EARTHENWARE, LOOSE TOP.*Constructed on an entirely new principle, based on common sense, & only requires introducing to supersede all other kinds.*

No. 1 shows the Front View.

No. 2 „ Back View.

No. 3 „ the Loose Lid.

No. 4 „ Bottom or Receiver, with a capacity of 3½ pints.

These Illustrations show
the exact Shape and Style
of the New Bed-pan.

LIST OF PRINCIPAL ADVANTAGES.

- 1st.—It is the exact shape of the human body, and can be used by the Invalid with ease and comfort.
2nd.—The Top being removable, allows the Pan to be easily cleaned.

3rd.—The Bottom or Receiver has a capacity of 3½ pints.

4th.—In the event of an accident, a fresh Top or Bottom can be readily obtained.

The Patentee has had most flattering reports from the various Physicians to whom he has introduced it, and the following Testimonials are taken from a number he has received. They require no comment.

COPIES OF TESTIMONIALS.

From R. G. ALEXANDER, Esq., M.A., M.D., Consulting Physician to the Bradford Infirmary, to the Halifax Infirmary, and to the Lords of the Admiralty.

MANOR ROW CHAMBER, BRADFORD: February 11, 1887.

I have pleasure in stating that I have seen and examined Dr Forshaw's Patent Anatomical Bed-pan, and am of opinion that, for comfort, cleanliness, and general utility, it is unequalled. A bed-pan combining these qualities has long been a desideratum, and I feel sure that it will supply a want that has long been felt.

(Signed) R. ALEXANDER, M.A., M.D.

From T. W. HIME, Esq., B.A., M.B., Medical Officer of Health for Bradford.

13 CLAREMONT: December 1, 1886.

The novel Bed-pan devised by Dr. Forshaw appears to me to possess several decided advantages over those now in use. The difficulties and inconveniences arising from badly constructed ones are only too familiar to those who are experienced in attendance on the sick. To all such Dr. Forshaw's new pan will be a great boon.

(Signed) THOS. WHITESIDE HIME, B.A., M.B.

From Dr. HERBERT SHACKLETON, M.R.C.S., Eng., L.K.Q.C.P.I.

I have examined the Bed-pan invented by C. F. Forshaw, Esq., and consider the idea a very admirable one, and a great improvement on those in daily use.

December 10, 1886.

(Signed) H. SHACKLETON, M.R.C.S., Eng.

From Mrs. SARAH DRIVER, Certificated Ladies' Nurse.

23 ST. ANDREW'S VILLAS, BRADFORD: December 16, 1886.

Dr. FORSHAW: Sir,—I have carefully examined your patent Bed-pan, and am of opinion that it is a very great improvement on those in general use, being clean, convenient, and more comfortable to the patient.—I remain, Sir, yours,

SARAH DRIVER, Ladies' Nurse (Certificated).

From "The Provincial Medical Journal."

Mr. Forshaw, D.D., has patented an excellent and useful article, the drawings of which we give. It possesses manifest advantages over the bed-pan in common use. The bed-pans hitherto in use are the old round pan with hollow handle, and the slipper, of which there are several varieties. It may be doubted whether the slipper, although newer, has any real advantages over the round shape. Both of these are difficult to clear and uncomfortable and inconvenient to use, while their capacity is insufficient. The objections have all been removed by the present invention. Modelled from the human figure, it is perfectly comfortable; the additional height in front, together with the guard on the lid, entirely prevents those accidents which were so frequent in using the old shapes; the lid being movable, the pan can be thoroughly and easily cleaned; while the capacity (3½ pints) is sufficient for all occasions. The bed-pan is suitable for persons of both sexes, and will be found specially valuable by ladies in accouchement.

Sold by all Chemists, Earthenware Dealers, &c Wholesale Price, 5/9 each; Usual Discount.

SOLE WHOLESALE AGENTS—

**AYRTON & SAUNDERS**

149 DUKE STREET, LIVERPOOL.

Telephone No. 423.

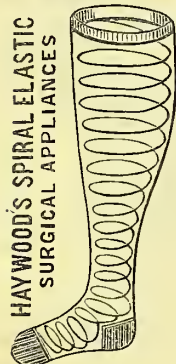
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USED BY SURGEONS ALL
OVER THE WORLD.

In one week recently three curious uses were reported for which
"THE LEICESTER" IMPROVED ADHESIVE PLASTER.
On Fine Flesh-coloured Cambric,
 is found the best, after trying other makes (in the first case, nearly every known plaster). 1. A well-known actor said he had the good fortune to meet with it in the South of England, and had inquired for it wherever he went since. It is the only plaster he can find to answer for fixing false hair, &c. 2. A chemist in the North wrote and said a lady violinist would have nothing else; she uses it to make a pad to protect her finger. 3. A chemist in Yorkshire has a customer who uses plaster to keep his eyes open and nothing will hold the lids up so well as "The Leicester" Improved Adhesive Plaster, on Fine Flesh-coloured Cambric. Surgeons in all parts are frequently commending it. The sale rapidly increases.

HAYWOOD'S PATENT SURGICAL APPLIANCES.



STOCKINGS, SOCKS, LEGGINGS, &c.,
 MADE ON ENTIRELY NEW PRINCIPLES.

ADVANTAGES: No Binding. No Seams. Equal Pressure throughout. Heels and Toes. Porous. Can be Washed. Adapts to shape of any Leg.

PATENTEE AND SOLE MANUFACTURER—

J. H. HAYWOOD, CASTLE GATE, NOTTINGHAM.

THE SURGEONS' LINT, V.B. QUALITY.

The superior quality of NEWSOME'S ABSORBENT SURGEONS' LINT is universally admitted.

The V.B. Quality is quite pure and of great superficial area and exquisite softness.

The C., D., E., and F. Qualities are equally pure and absorbent; E. is stronger in fabric.

Newsome's Bleached Rolled Bandages, 3 in., 2½ in., 2 in. Also Surgical Absorbent Open Bandages.

Specially Bleached and Grey Carded Cotton Wools, Absorbent and Bleached and Grey Waddings; also Sheet Waddings, Tow, &c.

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PRICES OF PLAIN PRINCIPLE TRUSSES, from 12s. per dozen, SINGLE; DOUBLE, 18s.

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Special Terms to Large Buyers on application.

PATENTEES OF

LINDSEY'S PATENT TRUSS, without STEEL SPRING.

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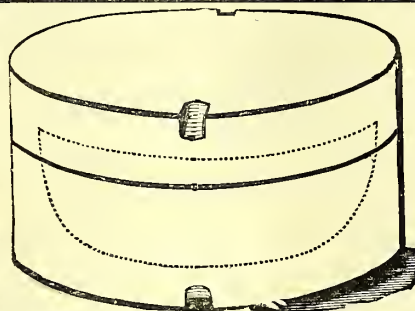
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WILLIAM TOOGOOD'S SPECIALITIES.

WAREHOUSE AND SHOW ROOM,
BURLINGTON BUILDINGS,
HEDDON STREET, REGENT STREET, LONDON, W.

TOOGOOD'S IMPROVED PATENT EARTHENWARE COVERED POTS

*Are claimed to be the most perfect
and convenient yet offered to the Trade.*



Owing to the increasing demand for our Patent Pots, we have introduced a Special THIN Series for Dispensing.

These Pots are beautifully glazed and finished, and, being very light, are specially adapted for sending by post.

ORDINARY THICKNESS—											
1 dr.	2 dr.	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2	3	4	6	8	ounces.
$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{6}$	$\frac{1}{7}$	$\frac{1}{8}$	$\frac{1}{10}$	$\frac{2}{2}$	$\frac{2}{10}$	$\frac{3}{4}$	$\frac{4}{6}$	$\frac{5}{6}$	per doz.
THIN for DISPENSING—											
$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2	3	4	6	8	ounces.		
$\frac{1}{7}$	$\frac{1}{8}$	$\frac{1}{10}$	$\frac{2}{-}$	$\frac{2}{4}$	$\frac{3}{-}$	$\frac{3}{8}$	$\frac{5}{-}$	$\frac{6}{-}$	per doz.		

TOOGOOD'S BURNT-IN POTS, FOR COLD CREAM, TOOTH PASTE, &c.

ARTISTIC DESIGNS AND NEW SHAPE JARS.

Samples and Prices forwarded upon application.

TOOGOOD'S GRADUATED MEASURES.

OF A VERY SUPERIOR QUALITY.
CONICAL OR CYLINDRICAL. STOUT AND ACCURATE.

3i.	3ii.	3ss.	3i.	3ii.	3iii.	3iv.	3vi.	3vii.	3x.	3xx.	3xl.	3lx.
6/6	8/6	6/-	7/-	8/-	10/-	11/6	15/-	16/-	18/-	25/-	36/-	72/-

 STAMPED, 3/- PER DOZEN EXTRA.

TOOGOOD'S BOXWOOD-TOP CORK BOTTLES

Are all sent out washed and dried, ready for immediate use.

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The most Showy Bottle in the Trade for all Toilet Requisites, as Hair Washes, Face Lotions, and Tooth Preparations. *Samples and Prices upon application.*

TOOGOOD'S CORN-SOLVENT BOTTLE.

2-dram Actinic Green Round Shouldered Vial, with Boxwood Top, Cork, and Camel Hair Pencil, in White Enamel Slide Boxes, price 18/- per gross.

TOOGOOD'S POISON BOTTLES.

ACCURATE AND STRONG. SEXAGON SHAPE IN DARK BLUE, ACTINIC GREEN, OR FLINT GREEN COLOUR. FLAT SQUARE SHAPE, IN DARK BLUE COLOUR.

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MAIDEN LANE, NEW YORK,
WHOLESALE BUYERS OF
SURGICAL, OPTICAL, AND DRUGGISTS' GOODS.


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METHYLENE.
Obtained by the action of Metallic Zinc on Chloroform and Alcohol.
Discovered to be a general Anæsthetic by Dr. RICHARDSON in 1867.
1-lb. Bottles, 16s.; 8-oz., 8s. 6d.; 4-oz., 4s. 6d.; 2-oz., 2s. 6d.
COMPOUND ANÆSTHETIC ETHER,
For producing Local Anæsthesia.
In 4-oz., 10-oz., and 20-oz. Stopped Bottles, 2s., 4s., and 7s.
OZONIC ETHER.
In 3-oz., 4-oz., 8-oz., and 16-oz. Stopped Bottles, 2s., 3s. 6d., 7s. and 12s.
PEROXIDE OF HYDROGEN.
First introduced as a medicine by Dr. RICHARDS
ETHYLATE OF SODIUM
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STYPTIC COLLOID,
or promoting the Healing of Wounds by the first Intention.
In 2-oz. and 4-oz. Bottles, with brush, 2s. 6d. and 4s. 6d.; 16-oz., 12s.
CHARCOAL CAPSULES,
Containing Pure Vegetable Ivory Charcoal.
In Boxes, 2s. 6d. each.

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OXFORD ST. 147

GENUINE THIBET MUSK.
"PHENIX" BRAND  **SEASON 1883.**
Grained, and Guaranteed Pure by
SYMES & Co., *Symes & Co.*
The Viceroys' Chemists,
SIMLA (HIMALAYAS).

MUSK of the above Brand is received direct from SIMLA (in GRAIN only).
It is now put up in bottles of only one size, each containing ½ oz. avoirdupois.
PRICE, 2s/; two bottles, 4s/; four bottles, 8s/; For 4 oz. (16 bottles) and upward 80/ per ounce.**LYNCH & CO.,** 192 Aldersgate St., LONDON.

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TRADE MARK

REGISTERED. **"SPIRONE"**
TRADE MARK.
FOR THE TREATMENT AND CURE OF ALL

DISEASES OF THE LUNGS, WINDPIPE, NOSE, AND THROAT,

Claims to be a Specific for all Congestive and Inflammatory conditions of the Respiratory Apparatus, and will be found efficacious in

COUGHS AND COLDS, ASTHMA, BRONCHITIS,

Inflammation and Congestion of the Lungs, Pneumonia, Pleurisy, Whooping Cough, Croup, Diphtheria, Pharyngitis, Laryngitis, Catarrh, Sore Throat, Quinsy, Enlarged Tonsils, Hoarseness, Loss of Voice, Colds in the Head, Hay Fever, and all other Complaints of the Respiratory Organs.

PREPARED ONLY BY THE INVENTOR.

None Genuine except such as bears the above Trade Mark "SPIRONE" and the Signature of the Inventor upon the Bottle on the Label over the Cork, and on the Wrapper,

JOHN FRANCIS CHURCHILL, M.D. (Paris),*The Discoverer of the Specific Cure for Consumption, and of the Medicinal Properties of the Hypophosphites.***Price 4s. 6d. and 11s. per Bottle.**

SET OF APPARATUS FOR ADMINISTRATION, 15/. PAMPHLETS FREE ON DEMAND.

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Flax Lints,

Roll Bandages,

Cotton Wools.



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(Patent Absorbent Gauze and
Cotton Wool)

AND

Improved

Swans' Down.

MANUFACTURED BY

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We make by our improved machinery. Perfectly pure, strongly absorbent, beautifully soft, tears well, and very cheap. Their use in the largest Hospitals of London, Edinburgh, &c., is a sufficient guarantee of their quality. Our Flax Lint is the only **ABSORBENT** Flax Lint made, that we know of.

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Surgeons who have not seen our White Absorbent Roll Bandages should write us for a sample. As well as being all that is required for splints, &c., being instantaneously absorbent, **LOTIONS** can be applied direct through the Bandage, and they are also the very best Bandage for use with starch or plaster-of-Paris, &c.

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Through the large demand we have had for our Absorbent Cotton Wools, we have been obliged to largely increase our bleachhouse and carding power, and are now turning out more than double the quantity of these goods. We make a first-class article for Surgeons' private practice, and a pure cheap Absorbent Cotton for Hospital use. We are also Carders of both Grey and the ordinary grades of Non-Absorbent White Cottons.

"GAMGEE TISSUE."

PLEASE READ THIS—

This patented article, recently introduced, and of which we are the sole proprietors and manufacturers, is deservedly increasing in favour with the profession. We quote the following extract from a Clinical Address delivered by **SAMPSON GAMGEE, Esq., F.R.S.E.**, Consulting Surgeon to the Queen's Hospital, Birmingham:—

"On purely surgical grounds, I have no hesitation in stating that the absorbent gauze and cotton tissue prepared at my suggestion by Messrs. Robinson & Sons, of Chesterfield, is the most generally useful and comfortable, the most easily manageable, and most economical surgical dressing with which I am acquainted.

"The tissue, as made in long lengths, is perfectly uniform in surface and thickness, and can be cut to any shape or size to pad the trunk or the limbs, in case of disease or injury. Powerfully absorbent and elastic, the tissue is equally serviceable for drainage and compression, for dressing blisters and burns, wounds and ulcers, sprains and fractures. The tissue does not stick in wounds, and can be applied and taken off with facility and without pain. It does not lump together but remains uniform, and is a most soothing and healing application to inflamed joints, and many skin affections.

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As used to this date by Messrs. Holloway, Cockle, Cox, and all the principal Pill Makers in Europe, Asia, Africa, America, and Australia.

Fig. A.

Rotary Machine, Fig. A.—This invention consists in a novel and improved arrangement of Machinery, whereby any description of Pill Mass can be converted into Pills, at the rate of from 15 lbs. to 40 lbs. per hour, according to the size of the Machine used.

Fig. B.

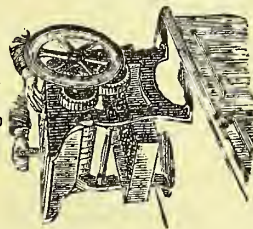


Fig. B.—A small useful Machine, capable of making 10 lbs. of Pills per hour, particularly adapted for persons making small quantities, at £7 15s.

ROTARY PILL MACHINES.

Fig. A.—No. 1...£12 12s.
" 2...£15 15s.
" 3...£20 0s.

Fig. C.

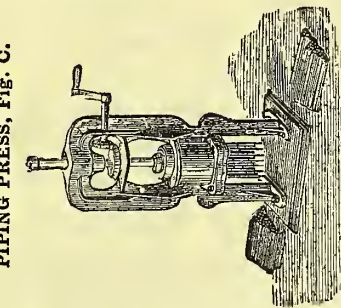


Fig. C. is the improved Press for Piping, by means of which a great quantity of Mass can be Piped in a few minutes truer than by the old method of rolling.

PIPING PRESSES.

No. 1. ... £3 0s.
Fig. C.—No. 2... £5 10s.
" 3... £8 0s.

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Improved Double-Action

TINGTURE PRESSES

(As approved of by Wholesale Chemists).

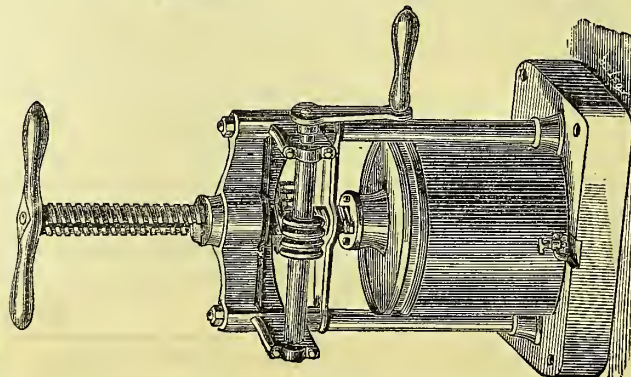
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For each additional Gallon,
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The smallest Machines can be worked by Steam Power at a small additional cost.

Mr. J. W. PINDAR.

224 Strand, 13th March, 1886.
Sir,—I have much pleasure in stating that the Pill Machine which you made for me answers remarkably well, as the Pills are far better made than those by hand-machines, and with much less waste. I can, therefore, confidently recommend it as a very excellent one, a great saving of labour, and consequently expense.—I remain, yours faithfully,
THOMAS HOLLOWAY.

338 Oxford Street, opposite Great Portland Street, Feb. 11th, 1871.

Mr. J. W. PINDAR.
Sir,—The Rotary Pill Machine and Press which we had from you (for a special order) answered very satisfactorily.—We are, sir, yours respectfully,
JOHN BELL & CO.

3 Crane Court, Fleet Street, Feb. 14th, 1871.

To Mr. J. W. PINDAR.
Dear Sir,—We have now used your Rotary Pill Machine about six years, and find it answers better than any we had previously used, and makes the Pills of a very regular size.—Yours truly,
T. WHELETON.

29 Murray Street, New York, and Farringdon Road, London, Nov. 9th, 1880.

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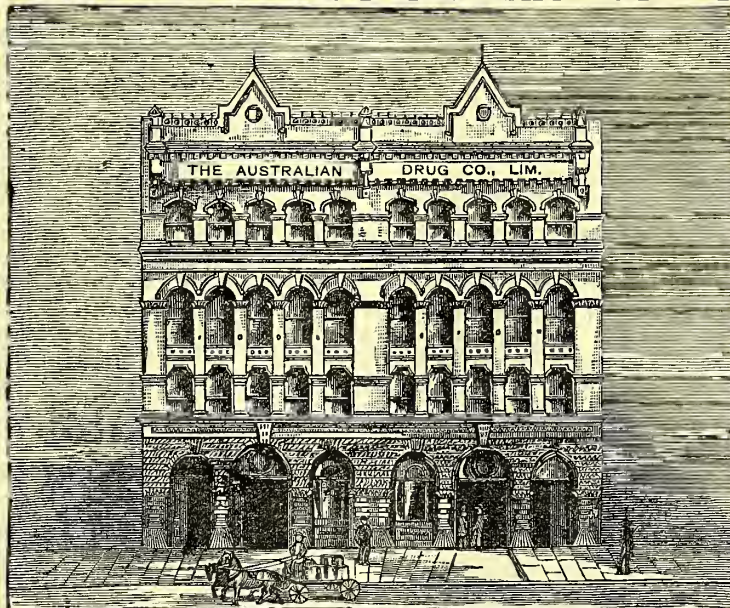
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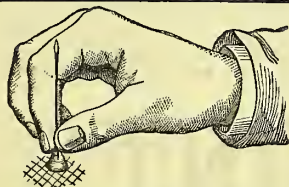
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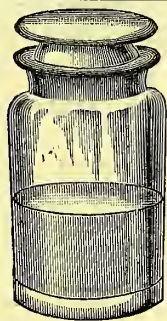
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In 1s. 6d., 2s. 6d., 4s. 6d., and 8s. 6d. Bottles.

Wholesale Agents for the Dominion of Canada:—**EVANS, SONS & MASON, Limited, MONTREAL.**

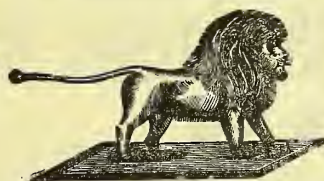
NOTICE.

THE HOP BITTERS CO., LIM., CAUTION

Chemists and Patent Medicine Vendors against stooping to the dishonourable practice of selling counterfeits and imitations of Hop Bitters, thereby deceiving the public, and trading upon their property and reputation, as forthwith they will FULLY PROTECT THEIR RIGHTS, and deal with such unprincipled traders to the FULLEST EXTENT OF THE LAW.

THE HOP BITTERS COMPANY, LIMITED, 41 FARRINGTON ROAD, LONDON, E.C.

TRADE MARK
REGISTERED
OVER ALL THE
GLOBE.



E. BURGESS'
LION OINTMENT AND PILLS

Cure the worst and most obstinate cases of Ulcers, Abscesses, Cancers, Tumours, Polypi, Carbuncles, Piles, Poisoned Wounds of all kinds (including Dog and Venomous bites), and every form of Eruption and Skin Disease; also Ulcerated and Cancerous Affections peculiar to Females, without the aid of Lancet or Knife.

Numbers have been cured after leaving various London Hospitals as incurable, or curable only by amputation. Photographs of Cases Cured, neatly framed for exhibition, Transparencies, Bills with Name, &c., forwarded direct or through any Wholesale House. Plenty of Advertising Matter supplied to Chemists willing to push the sale.

SPECIAL NOTICE TO AUSTRALIAN CHEMISTS.—Messrs. Lynch & Co., of Melbourne, have in stock a supply of these remedies, one box of which will ensure a sale by proof of efficacy.

The Ointment is put up in air-tight grease-proof boxes, and will keep good any length of time in any climate. The Pills are in stout wooden boxes, and also retain their virtue for years. Prices, 1s. 1½d., 2s. 9d., 4s. 6d., 11s., and 22s. each. Usual Wholesale Terms.

E. BURGESS, 117 High Holborn, and Kingsgate Street, LONDON, W.C.

NOW READY.

J. SANGER & SONS' NEW & REVISED PRICE CURRENT

With over 300 Illustrations.

IT WILL BE FOUND TO BE A MOST COMPREHENSIVE LIST OF

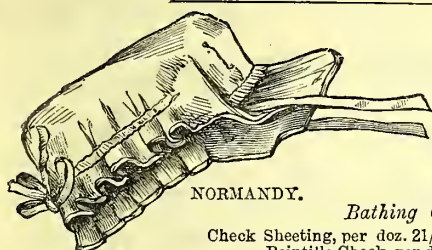
PROPRIETARY MEDICINES, DRUGGISTS' SUNDRIES,

PERFUMERY, LOZENGES,

MINERAL WATERS, &c.,

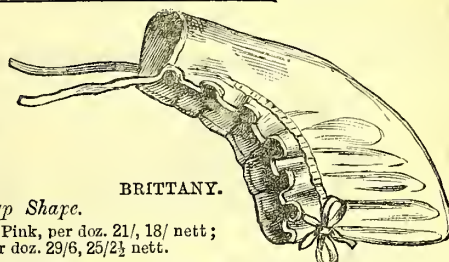
AND WILL COMPARE FAVOURABLY WITH
ANY OTHER LIST AS TO

PRICES CHARGED.

POST FREE ON RECEIPT
OF BUSINESS CARD.Purchasers of Druggists' Sundries, Smelling
Bottles, Hair Brushes, Combs, Sponges, Thermo-
meters, Filters, and Boxes of all descriptions
should pay a visit to our Showroom before pur-
chasing elsewhere, in order to compare our prices
and quality against other houses.AGENCIES OF ALL KINDS UNDERTAKEN
ON FAVOURABLE TERMS.

NORMANDY.

NOVELTY IN BATHING CAPS.



BRITTANY.

*Bathing Caps, Normandy or Brittany Cap Shape.*Check Sheeting, per doz. 21/, 18/ nett; Jaconet, White, Yellow, or Pink, per doz. 21/, 18/ nett;
Pointille Check, per doz. 28/, 23/11½ nett; Sateen Check, per doz. 29/6, 25/2½ nett.

J. SANGER & SONS, 489 OXFORD STREET, LONDON, W.

IMPORTANT TO CHEMISTS & PATENT MEDICINE DEALERS**Large Profits and a Ready Sale. NO RISK.****BECK'S COMPOUND TONIC**

HOP BITTERS

*Composed of Hops, Buchu, Podophyllin, Dandelion, and other valuable ingredients.***IN HALF-PINT BOTTLES TO RETAIL AT 1/-**

SOLE PROPRIETOR—

ALBERT N. BECK, WHOLESALE CHEMIST, HASTINGS.**PRICES—CASES OF 3 DOZEN, 22/- NET.**

Free on rails in London. Cases and Packing 2/- extra, allowed in full on return.

Special Offer to large Purchasers.—If 6 dozen and upwards ordered, the Name of Retailer will be printed
on Label, and 1,000 Handbills bearing Name and Address will be supplied, and also Show Cards.**TERMS:—CASH WITH ORDER OR TWO LONDON REFERENCES.**

EAU DE COLOGNE

OF THE MOST ANCIENT DISTILLER,

JOHANN MARIA FARINA,*Opposite the Julichs Place, COLOGNE.*

ESTABLISHED A.D. 1709.

PRIZE MEDALS:—LONDON, 1851 AND 1862; OPORTO, 1865; PARIS, 1867; VIENNA, 1873.

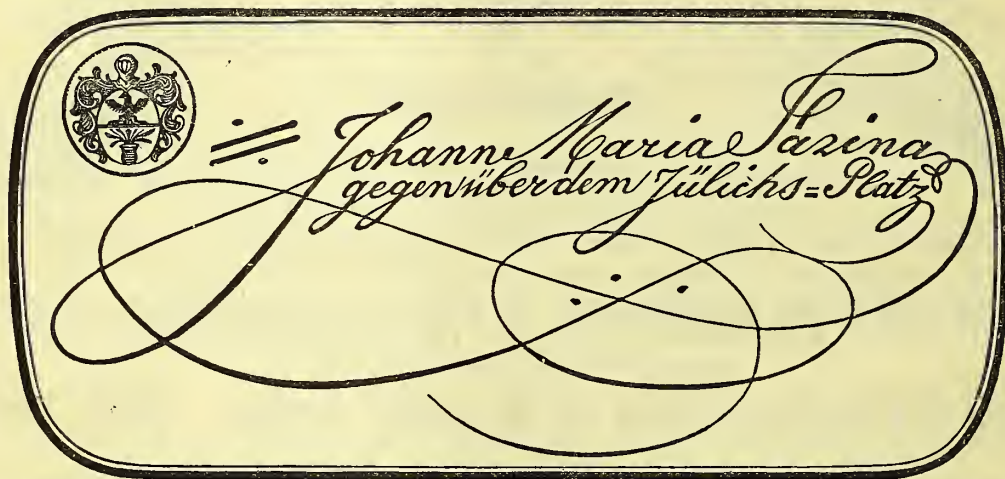
By appointment, Sole Purveyor to Her Most Gracious Majesty Victoria, Queen of Great Britain & Ireland; Their Royal Highnesses the Prince and Princess of Wales; William, King of Prussia;



Albert II., King of Saxony; Alexander II., Emperor of Russia; Francis Joseph, Emperor of Austria; Lewis, King of Portugal; H.B.H. Frederick William, Crown Prince of Prussia.

In consequence of increasing inquiries from the Colonies for my Eau de Cologne, the only genuine, I beg to submit my Price Current.

At the same time I beg to call special attention to the following facsimile of my Trade Mark, for the protection of which I have instituted thirteen suits in the High Court of Chancery, all of which have been decided in my favour.



All similar Labels being more or less imitations of the same, I shall proceed as before against all persons selling or exposing for sale any such imitations.

I only prepare one quality of Eau de Cologne. This quality never varies in the slightest degree, and there has not been the smallest change in the manufacture since the year 1709, when it was invented by my ancestor.

Orders equal to at least 12 dozen short bottles will be promptly executed at 12s. 6d. per dozen, against my bill drawn at three months from the date of invoice, delivered free on board the export ship, at Rotterdam, Antwerp, Hamburg, or Bremen, no charge being made for the case and packing, but insurance charged extra. 7½ per cent. discount is allowed for orders equal to at least 100 dozen, but on no smaller quantities.

I may add that, as I do not draw on the Colonies, all Orders must be accompanied by a credit on some London House, or permission to draw on same at three months.

The Goods can also be shipped in transit through London at a very small additional expense, full particulars of which may be obtained of my Sole Agents for Great Britain and Ireland:—

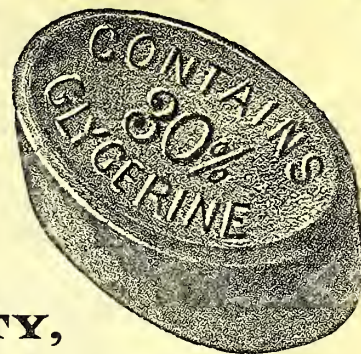
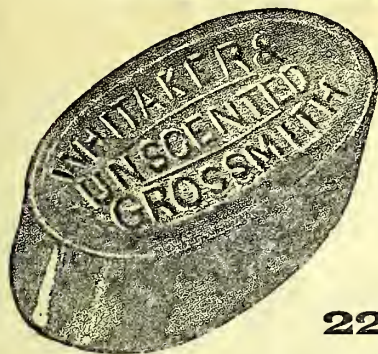
MESSRS. J. & R. McCracken,**No. 38 Queen Street, Cannon Street, London, E.O.**

The following are the sizes of my bottles:—

No. 1. Long Green Flasks	12 bottles	} to one dozen.
" 2. Short White Bottles	...	...	...	...	...	...	12 "
" 3. Double ditto	...	...	...	...	...	...	6 "
" 4. Wickered Bottles (small)	...	...	...	...	...	...	8 "
" 5. ditto (medium)	...	...	...	...	...	...	4 "
" 6. ditto (large)	...	...	...	...	...	...	2 "

JOHANN MARIA FARINA,
OPPOSITE THE JÜLICH'S PLACE.

COLOGNE: January, 1887.

WHITAKER & GROSSMITH*The acknowledged best Makers of the***REAL OLD ENGLISH
TRANSPARENT SOAP,***In Tal lets, Shaving Sticks, and Balls. 25 per cent.
cheaper than any other of its kind in the Market.**Proprietors of the Celebrated***WHITE GLYCERINE SOAP
AND
SANITARY EUCALYPTUS SOAP.****22 SILK ST., CITY,
LONDON****Write to WARRICK BROTHERS
OLD SWAN LANE, LONDON, E.C.,****For Quotations for****ESSENTIAL OILS
FRENCH POMMADES
FRENCH EXTRAITS
FRENCH WATERS****MUSK
AMBERGRIS
VANILLA
Etc., etc.****OLIVE OIL
ALMOND OIL
ORRIS ROOT
Etc., etc.****JUJUBES
PASTILLES
LOZENGES
CACHOUS
CANDIES****SPECIAL
PRICES
FOR
WHOLESALE
AND
EXPORT.****WARRICK FRÈRES, GRASSE & PARIS. Also NEW YORK, 84 Church Street.****WHITE AND SOUND TEETH.****JEWSBURY & BROWN'S
ORIENTAL TOOTH PASTE***This old-established and increasingly favourite Dentifrice has been over Sixty Years before the Public. It is warranted
to retain its properties and keep in good condition in any climate. The original and only genuine is manufactured solely by***JEWSBURY & BROWN, Chemists, MANCHESTER,***and is distinguishable by the Trade Mark, printed in red and green, a facsimile of which is annexed. Particular attention
should be paid to this guarantee of genuineness, as numerous imitations are offered. Sold universally by Chemists and
Perfumers, at 1s. 6d. and 2s. 6d.**The Trade and Shippers supplied by the leading houses in London and elsewhere. Bills and Show Cards forwarded on
receipt of address cards and directions for enclosure.***WALNUT POMADE.***A Triumph as a Hair Restorer.
An immediate effect.**Pleasant and Harmless.**Four Colours—Golden, Light Brown
Dark Brown, and Black.**Pots— $\frac{3}{4}$ oz. (1/6) 12/ per doz.
 $\frac{1}{2}$ oz. (2/6) 20/ per doz.***DEPILATORY POWDER
FOR REMOVING****SUPERFLUOUS HAIR**
*Speedily and effectually, without
injuring the Skin.**Retail, 1/; Wholesale, 8/ per doz.**AGENTS:—Barclay; Edwards
Maw; and Sanger.*

SOLE PROPRIETOR—

EUGENE MORPHY, 70 South Audley St., Mayfair, LONDON.**IMMENSE SALE.****SOLD EVERYWHERE.****WOODS' ARECA NUT
TOOTH PASTE,***As used and recommended by Madame
Marie Roze, the Prima Donna.***PRICE, 6d. and 1s. per Pot.****CAUTION.—SEE "WOODS, PLYMOUTH,"
ON EACH POT.**

NOTICE!!!

THE MOST PROFITABLE BRAND.

THE FIRM OF MARIA CLEMENTINE MARTIN,

NUN

Of COLOGNE, having been awarded the SPECIAL FIRST PRIZE MEDAL
for their celebrated

EAU DE COLOGNE

AT THE

SYDNEY EXHIBITION, 1879,

HAVE THE PLEASURE TO ANNOUNCE TO THE PUBLIC THAT THEY HAVE ALSO OBTAINED THE
FIRST PRIZE MEDAL AT THE

MELBOURNE EXHIBITION, 1880.

They trust that the above distinctions conferred upon them by such expert judges will be sufficient
guarantee that the Eau de Cologne of their manufacture is, **without doubt, the best.** They beg
to append a List of Prize Medals obtained at other Exhibitions:—

**LONDON, 1851; RHENISH PROVINCES, 1852; NEW YORK, 1853;
PARIS, 1855; LONDON, 1862; VIENNA, 1873.**

The above firm only export to England their DOUBLE Eau de Cologne, and request their customers, in
comparing the prices of the different Brands, to take into consideration that the bulk of those sold with
the white label are Single (or only half strength of the Double), which enables the Makers to sell at a
low price with great profit. If they will trouble to compare the subjoined prices with those of any firm
manufacturing **Eau de Cologne DOUBLE**, the comparison will be greatly in favour
of our Brand.

PRICE LIST.

	Duty Paid, Net.	In Bond.		Duty Paid, Net.	In Bond.
No. 1.—Half Shorts	8/-	5/-	No. 4.—Long Green Flasks	15/-	10/-
No. 2.—Shorts	15/-	10/-	No. 5.—Wickered Bottles (Small)...	25/-	17/3
No. 3.—Shorts (finely Wickered) ...	20/-	15/-	No. 6.—Wickered Bottles (Medium)	50/-	34/6
No. 7.—Wickered Bottles (Large) ...					

No. 7.—Wickered Bottles (Large) 100/- duty paid, net; 69/- in bond.

Small Cases assorted to order (of not less than £3 value in bond) delivered free freight, less 7½ per cent. discount.

SOLE AGENT FOR GREAT BRITAIN AND IRELAND:

H. C. MASON, LONDON.

London Depot: 1 & 2 Australian Avenue, London, E.C.



DATEY & CO.

FOR NEARLY FIFTY YEARS AT
37, LOMBARD ST., LONDON.

MANUFACTURING PERFUMERS.

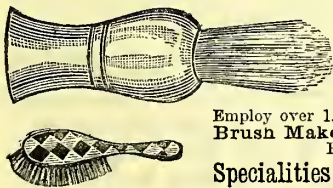
Manufactory—49, SCRUTTON STREET, FINSBURY, E.C.
Bonded Perfume Warehouse—ST. KATHARINE'S DOCK,
City Depot—19 & 20, WALBROOK, E.C.

COLD CREAM
LAVENDER WATER
PERFUMES & POMADES
VIOLET POWDER
BROWN WINDSOR
TOILET SOAPS &c

HUNT'S BOTTLE CAPS (PLEATED PAPER),

From 8d. per gross, of all the WHOLESALE HOUSES.

Manufacturers—W. F. HUNT & CO., 6, 8, and 10 LEXINGTON STREET, LONDON, W.



DUKAS & CO., 20 Red Lion Square, LONDON, W.C., WHOLESALE BRUSH MANUFACTURERS,

Employ over 1,000 hands, and supply their Brushes more than 25 per cent. Cheaper than any English Brush Makers, and guarantee the quality cannot be surpassed. Large Stock is kept in London of several Thousand Patterns, from the Cheapest to the very Finest Quality. No Travellers or Agents are employed.

Specialities: Hair Brushes, Shaving, Tooth, Nail & Bottle Brushes. Samples sent on application.

AUSTIN & CO., PATENTEES & MANUFACTURERS OF ROUND CARDBOARD AND OTHER SHAPED BOXES, BRITISH AND FOREIGN,

For POSTAL and general purposes; also PATENT BARREL PACKAGES with Metal ends for dry goods.
Inventors of the "NOVEL" METAL PERFUME SPRINKLERS.

Office & Warehouse—8 GREVILLE ST., HATTON GARDEN, LONDON, E.C.
Steam Works, Mount Pleasant, Gray's Inn Road, London, and Ring Factory, Clonakilty, County Cork.

A QUICK WAY TO
MAKE MONEY



25/- of A1 BRAND MENTHOL will realise 48/-,

Or a Profit of 23/- which is over 90 per cent.

Send a cheque for 25/- and I will forward either of the following, together with a HANDSOME GLASS-FRONTED SHOW CASE and ROUND HANDBILLS:—

Order as
Parcel
A B C or D.

PARCEL A
4 dozen 6d.
2 " 1s.

PARCEL B
5 dozen 1s.
2 " 6d.

PARCEL C
5 dozen 5d.
2 " 1s.

PARCEL D
4 dozen 1s.
2 " 6d.

Illustrated
Price List post
free on
application.

90% PROFIT. CARRIAGE PAID.

Of all Wholesale Houses,
or direct from

ARTHUR W. SHIRLEY (J. G. Shirley), 30 Paternoster Sq., London, E.C.



JOHN R. HALL'S WOOD VIOLET.

"At the very first sniff there will be an exclamation of gratification at the sweetness and delicate delicacy of this perfume."—*Court Journal*.

PATRONISED BY

H.R.H. the Princess of WALES.

H.R.H. Princess CHRISTIAN.

H.I. and R.H. the Crown Princess of GERMANY.

H.R.H. the Princess LOUISE (Marchioness of LORNE).

H.R.H. Princess HENRY of BATTENBERG.

H.R.H. the Duchess of TECK.

H.R.H. the Princess WILLIAM of PRUSSIA.

H.R.H. the Hereditary Princess of SAXE-MEIN-INGEN.

H.I.H. the Grand Duchess OLGA FEODOROVNA of RUSSIA.

H.R.H. the Countess of FLANDERS.

H.G.D.H. Princess LOUIS of BATTENBERG.

H.S.H. the Princess CAROLINA MATILDA of SCHLESWIG-HOLSTEIN.

H.S.H. Princess EDWARD of SAXE-WEIMAR.

H.S.H. the Duchess of SCHLESWIG-HOLSTEIN, &c.

In Bottles, 1/3, 2/6, 5/6, 7/6, 10/6, and 21/- each.

Proprietor: EDWIN R. BIGGLESTON, 11 Mercery Lane, CANTERBURY.

MESSRS. J. ATKINSON & CO.,

Of 5 FINSBURY SQUARE, LONDON, Manufacturers of HIGH-CLASS PERFUMERY,

Beg to inform the Trade that they are in no way connected with the firm of Messrs. J. & E. Atkinson, of Old Bond Street, but sell their Goods upon their own merits, viz:—QUALITY AND CHEAPNESS.

CAUTION.

A. S. LLOYD'S EUXESIS, FOR SHAVING WITHOUT SOAP, WATER, OR BRUSH.

The GENUINE Euxesis bears the following distinctive marks:—

1.—My full name AIMÉE LLOYD on cap of tube.

2.—The words "Prepared only by his Widow" and my signature of AIMÉE LLOYD in RED INK across labels, in addition to my late Husband's signature in black ink.

AIMÉE LLOYD

(WIDOW OF A. S. LLOYD, formerly of 27 GLASSHOUSE STREET,)

3 SPUR STREET, LEICESTER SQUARE, LONDON.

A. S. LLOYD'S EUXESIS

For Shaving without Soap, Brush, or Water.

CAUTION.

The only Genuine has a yellow label printed ONLY in Black Ink, and bears the original address of the late inventor, "27 Glasshouse Street, Regent Street," the proprietors having purchased, under an administration suit, the Secret, Trade Mark, Goodwill, and Premises:

SOLE PROPRIETORS.

**R. HOVENDEN & SONS,
LONDON.**

BARBER'S ORIGINAL CRIMSON INK

FOR MARKING LINEN,
WHICH IS CHANGED BY HEAT TO A JET BLACK.

Put up for Retail Sale in 6d., 1/, 2/, 2/6, and 5/ Bottles.



Also BARBER'S
CONCENTRATED LIQUID COCHINEAL,
FOR COLOURING JELLIES, CUSTARDS, &c.
PUT UP IN 6D. AND 1/ BOTTLES.

MANUFACTURED ONLY BY THE PROPRIETORS—

G. BARBER & CO.,
6 Worcester Drive, Club Moor, LIVERPOOL.

Can be obtained through any of the Wholesale Firms, or from the Proprietors,
G. BARBER & CO., CLUB MOOR, LIVERPOOL.

HOOPER'S MARKING INK

IS THE BEST, BLACKEST, & MOST PERMANENT.



Messrs. THRESHER & GLENNY, Hosiers to H.R.H. the Prince of Wales, say:—"We have used Hooper's Marking Ink for many years, and no Ink gives us such satisfaction or produces so black and permanent an impression."

1s. size, in Wood, 6s. 6d. per doz.; Card Cases, 5s. 6d.; 6d. size, 3s.

SPECIAL QUOTATIONS FOR LARGE QUANTITIES.

Agent for Tasmania: Mr. GOULD, Pharmacist, Hobart.
Depot: W. HOOPER & CO., 24 Russell Street, Covent Garden.

PHOENIX
ESTABLISHED A.D. 1815
MARKING INK

GENUINE INDELIBLE

THE LEADING &
STANDARD ARTICLE

PREPARED ONLY BY THE WIDOW OF THE LATE
JOHN MURPHY
CHEMIST AT THE ORIGINAL ESTABLISHMENT
11, NILE STREET, EAST ROAD, HOXTON N.

MANUFACTURER OF INDELIBLE MARKING INK

TO HER MAJESTY'S ARMY CLOTHING DEPARTMENT

THE ORIGINAL

TRADE MARK.
Estab^d 1815.

NO OTHER ADDRESS — BEWARE OF WORTHLESS IMITATIONS.

H. A. GOODALL & CO.,

ESTABLISHED 1852,

6, 7, 15, & 18 BARTLETT'S BUILDINGS, HOLBORN CIRCUS,

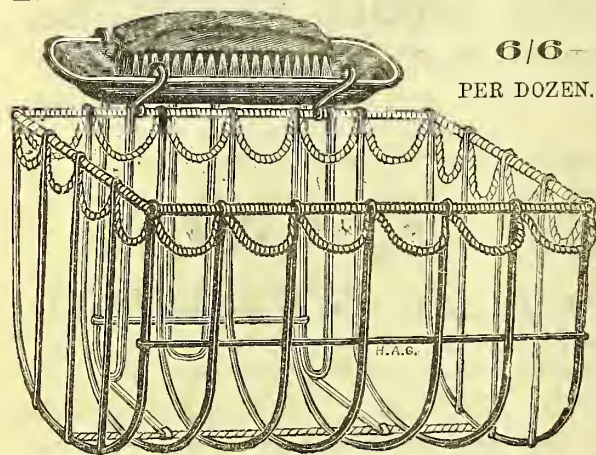
TELEGRAPHIC ADDRESS—
RENA LONDON.

LONDON,

BANKERS—
CITY BANK, LONDON.

ARE ONE OF THE BEST AND CHEAPEST MARKETS IN THE TRADE.

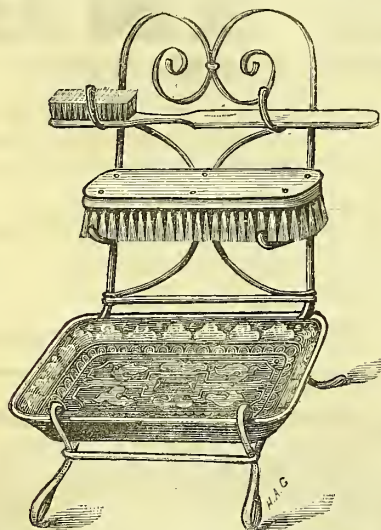
No Travellers sent out, but intending Cash Customers can have a Price List, with 1670 Illustrations, on sending Business Card and Trade References.



6/6
PER DOZEN.

THE HOLBORN SPONGE BASKET,

With Fancy China Brush Dish, 8 inches long, 5 inches wide.



3/9
Per dozen.

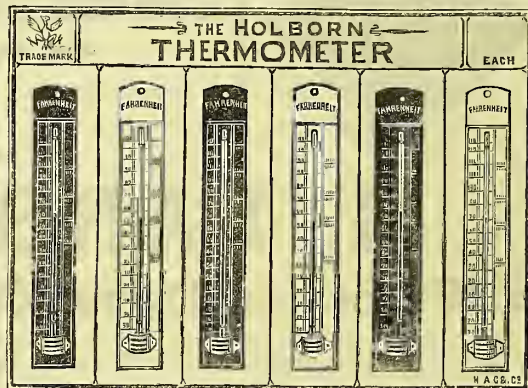
BRIGHT
WIRE,
WITH
CHINA
DISH.

THE HOLBORN BRUSH AND SOAP STAND.

GOODALL'S TWIN TOOTH BRUSH STAND,

REGISTERED.

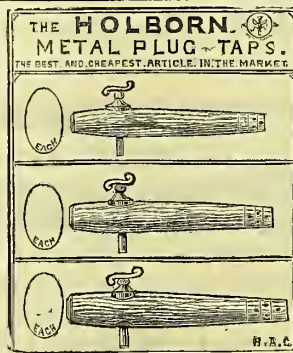
3/9 per dozen; or complete with Two
Brushes, 7/9 per dozen.



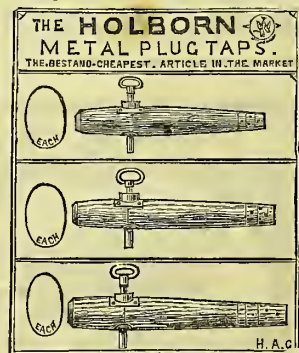
8-inch Thermometers, 3/9 and 6/9 per dozen.



Storm Glass and Thermometer, 7/6 per dozen.



THE HOLBORN
Polished Wood, Metal Plug Taps,
Perforated Ends.
6½ 2/2, 7 2/6, 7½ 2/10 per doz.



THE HOLBORN
Polished Wood, Metal Plug Key
Taps, Perforated Ends.
6½ 2/8, 7 3/0, 7½ 3/3 per doz.

H. A. GOODALL & CO.,

ESTABLISHED 1852,

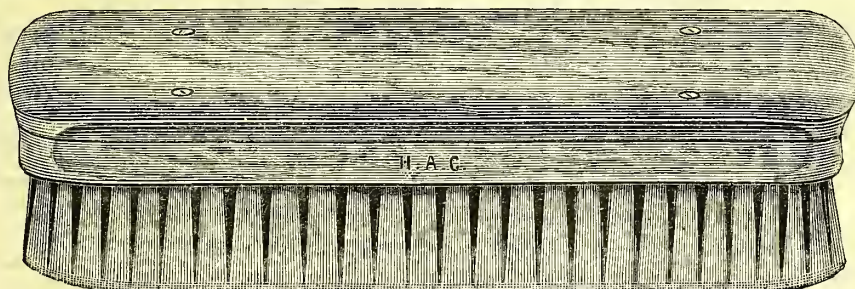
6, 7, 15, & 18 BARTLETT'S BUILDINGS, HOLBORN CIRCUS,

TELEGRAPHIC ADDRESS—
RENA LONDON.**LONDON,**BANKERS—
CITY BANK, LONDON.

ARE ONE OF THE BEST AND CHEAPEST MARKETS IN THE TRADE.

No Travellers sent out, but intending Cash Customers can have a Price List, with 1670 Illustrations, on sending Business Card and Trade References.

THE HOLBORN NAIL BRUSH.

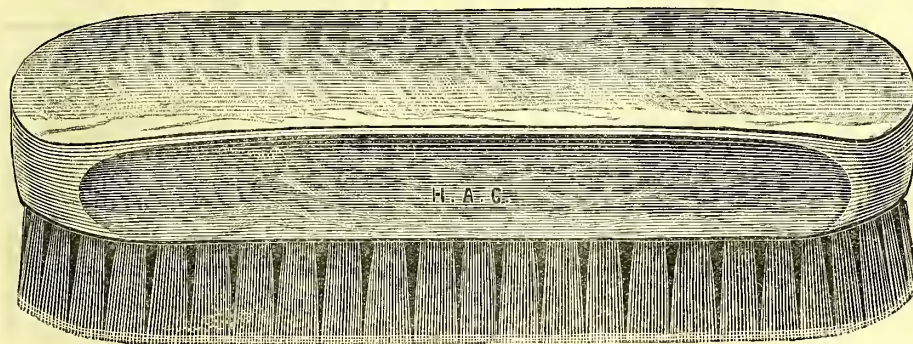


Boxwood, Fluted Sides,
Screwed Back, Best White
Fibre, and Cocoa Fibre
Middles with White Fibre
Outside Assorted.

4/3

PER DOZEN.

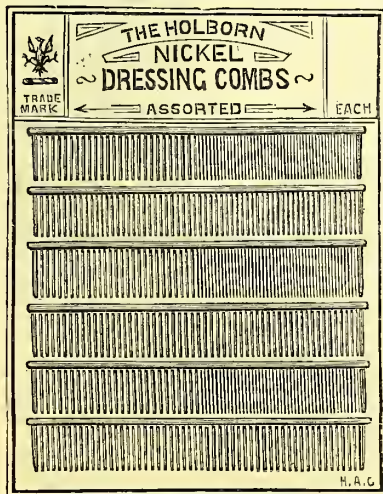
GOODALL'S JUBILEE NAIL BRUSH.



Solid Boxwood, with
Convex Back, Large
Hole Brush of Sorted
White and Cocoa Fibre.

5/6

PER DOZEN.



GOODALL'S NICKEL DRESSING COMBS.

The goods bearing our Trade Mark are of the very best possible finish; each tooth is drawn by machinery and let into a solid back, practically unbreakable.

7½-inch Dressing and Rake Combs, Assorted, on Handsome Lithographed Show Card,

3/8 PER DOZEN.

[2]

PROCTER'S **LIQUID GLUE** PROCTER'S
A PERFECT CEMENT.
MENDS EVERYTHING:

Wood, Glassware, China, Earthenware, Crockery,
Porcelain, Leather, Coral, Celluloid, Ivory, &c.

LARGEST BOTTLE. BEST VALUE.

No preparation or heating required. Always ready for use.

AGENT—

WILLIAM YOUNG, 42 Cheapside, LONDON, E.C.

J. H. WINKELMANN & CO., Proprietors,
BALTIMORE, Md., U.S.A.

PURE
SPIRITS OF WINE.

60 o.p., 20/3 per gall.; 56 o.p., 19/9 per gall.

1/ per Gall. Discount for Cash with order.

Further allowance for quantity. STEAM STILL ONLY.

GEORGE PHILLIPS & CO.,
ST. ANDREW'S DISTILLERY, CLERKENWELL RD.,
LONDON, E.C.

SEDDON'S GELATINOUS OIL

Supersedes all others, and lasts ten times as long as ordinary Oils.

It is the best, most economical, and perfect lubricant ever produced for all kinds of Carriages, Omnibuses, Cars, Cabs, Carts, Rullies, Waggon, and every description of Agricultural Implements, Steam Threshing Machines, Portable and Traction Engines, &c.

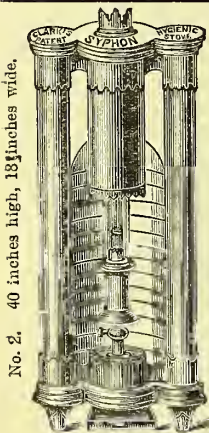
It is invaluable as a Healing Ointment, and for Skin Diseases in animals it is the best remedy known.

As a Harness Oil it has no equal, also for softening, preserving, and waterproofing Carriage Tops, Leather Aprons, &c., making them much more durable, and giving them an appearance almost equal to new. MANUFACTURED BY

J. & T. SEDDON, East Sculcoates Oil & Grease Works, OXFORD STREET, HULL.

Special Quotations to Shippers and large Buyers. Agents Wanted.

BURROUGHS
Best
Methylated
Spirits
AT LOWEST PRICES.
Also Best
Miscible
Naphtha
FINEST WOOD NAPHTHA.
JAMES BURROUGHS,
LONDON, S.W.



No. 2. 40 inches high, 18 inches wide.

THE
"SYPHON"
(REGISTERED TITLE)
(CLARK'S PATENT)
GAS HEATING STOVES.

NO FLUE REQUIRED.

No smoke. No smell. No dirt or trouble. No danger. All sulphurous vapours are condensed inside the Stoves, and passed off as a liquid into tray beneath. The ONLY SAFE ones for use in Hospitals, Sick Chambers, Greenhouses, Bedrooms, Halls, Offices, Churches, Schools, Surgeries, Consulting Rooms, Chemists' Shops, &c. Prices, from 38s. each. **BEWARE OF IMITATIONS.**

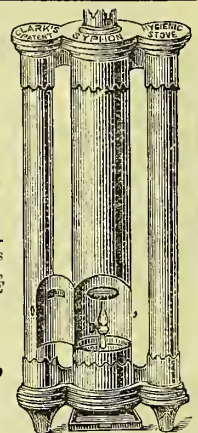
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TIN CANISTERS AND BOXES,
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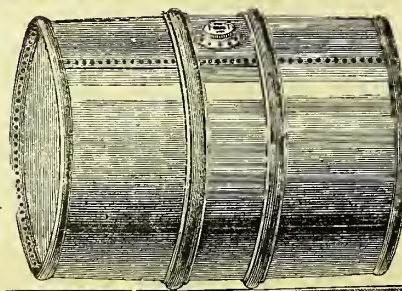
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These large Iron Casks, similar to sketch, can be handled with equal facility to wooden barrels, and, owing to their strength and durability, can be used over and over again for an indefinite period. They are perfectly liquid tight, being tested at a very high air pressure, and, unlike wood, do not absorb any of the contents. They are all fitted with interchangeable screw bungs, and can also be fitted with screw plug in head, for draw-off tap.

They are specially adapted for all kinds of Chemical Products, Sulphuric Acid, Glycerine, Spirits, Oils, Turpentine, Petroleum, Benzoline, Varnishes, Tar, Naphtha, Mineral Extracts, and Inflammable Liquids of every description.

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READY FOR USE.

COLOURS EXQUISITE, SURFACE LIKE PORCELAIN.

For art furniture, shelves, wicker and basket tables, chairs, hat stands, umbrella stands, milking stools, Venetian blinds, hot-water cans, bird cages, brackets, bedsteads, buckets, &c.

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Any Shade, Tint, or Colour made to pattern at one hour's notice.

Vermilion	Drab	Dark Oak
Flamingo Red	French Grey	Quaker Blue
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Black	Egg Tint	Turquoise
Sage Green	Heliotrope	Peacock Blue
Japanese Green	Smoke	Electric Green
Pea Green	Straw	Chocolate
Blue	Orange	Bronze
Terra-Cotta	Lilac	Fawn
Canary	Myrtle Green	Primrose
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Stone	Light Oak	Old Gold, &c.

Price in tins, 2s. 6d. and 1s. 3d.; post free, 3s. and 1s. 6d. A reduction made for half-gallons and gallons of Enamel.

A. A. and Co. have succeeded in producing also a special Enamel for baths that will stand boiling water. For years past this has been attempted by many scientific men in the trade, but they have all failed. This is specially recommended, and being ready for use, any lady or gentleman can apply it, and thus save the expense of sending the bath to be stoved. Colours: snow white, can de Nil, flesh colour, &c. Price 25s. per gallon; can be had in tins, 3s. 6d. and 1s. 9d., post free. All orders for *Bath Enamel* should be very distinct. Subjoined are a few of numerous testimonials. All originals can be seen at the Enamel Works, Peckham.

Every purchaser of Six tins of ordinary Enamel, not Bath, will receive Seven, which will be sent post free on receipt of P.O. for 9s.

The MARCHIONESS OF SALISBURY says, "The Enamel I ordered from you answers very well."

The COUNTESS OF LOUDOUN says, "I am much pleased with the Enamel paint. It is very satisfactory."

The COUNTESS OF NORBURY says, "I have lately used your snow-white Enamel paint, and have been thoroughly satisfied with my experience of it."

The COUNTESS FEHRERS says, "I have found your Enamel paint excellent for decorating wicker-work and wooden articles. I have recommended it to Lady Burdett."

The VISCOUNTESS CLIFDEN says, "Your enamel paints are very satisfactory. I shall feel obliged if you will send me . . ."

LADY BROOKE says, "I have much pleasure in testifying to the excellence of your Enamel paints."

LADY M. FORESTER says, "I am happy to say I have found your Enamel paint very satisfactory."

LADY HOWARD OF GLOSSOP says, "I have much pleasure in recommending your Enamel paint, which I have used in all colours, and found durable and effective."

LADY D. NEVILL says, "I have been thoroughly satisfied with your Enamel paint, which I like extremely."

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LADY GRANTHAM says, "I have much pleasure in recommending your white bath Enamel, which I have used with great success for several baths."

HON. MRS. EASON WILKINSON says, "My mother, Lady Decies, is at present abroad, but I myself have used your Enamel paint, and consider it most satisfactory in every respect."

"The thrifty should visit Aspinall's stall, and see a little wicker chair and table painted with Aspinall's Enamel. They are excellent illustrations of its worth in renovating."—*Queen*.

"Send for Mr. Aspinall's lovely paints; there is no need for any one to have an ugly article about them nowadays."—*Lady's Pictorial*

"Get some of Aspinall's Black Enamel from Hollydale Works, Peckham, or his flamingo red."—*Housewife*.

"The best paint for baths is Aspinall's White Bath Enamel."—*Bazaar*.

"Aspinall's Black Enamel is simply perfect."—*The Lady*.

"Use Aspinall's Black Enamel."—*Lady's World*.

PRIZE ESSAY ON ASPINALL'S ENAMEL FOR HOME AND CHARITABLE PURPOSES.

Among the many wondrous things
The minds of folks that trammel,
I sing of homes made fresh and gay
With "Aspinall's Enamel!"

No art's required to lay it on;
The willing hand is able
To renovate, to beautify,
Bath, can, or chair, or table.

Nor do its varied polished shades
The house alone adorn;
The shady nook it lightens up,
Bedecks the velvet lawn.

And if it's welcome to the rich,
Whose homes were hight before,
Think how its brilliant hues will change
The dwellings of the poor.

The infirmary ward, the dull sick-room,
Where pain and sorrow lie,
With pleasant tints may soothe and cheer
The sufferer's weary eye.

Lastly, its price is wisely placed
Within the reach of all;
So rich and poor may join in praise
Of Messrs. Aspinall.

Another of the essays, showing it is a boon to all classes, came from an unknown cottager:—

Aspinall's Enamel, where hast thou been?
Millions have been waiting thee to be seen.
Now that thou wilt this day declare
For baths none other can compare;
Damp walls for years were to be seen,
When done with thee art dry and clean;
Hot water using leaves no line,—
Makes no impression not in time;
For wear it stands before all others;
It should have been bought for our mothers,
For manual labour it do save;
Thanks for this blessing Almighty gave.

"There is no home in England, however noble or however humble, that cannot be made brighter and more cheerful by the use of this delightful invention. No house-proud lady will be without it, for the shabbiest object can be made into an ornament, an old bracket like carved ivory, a picture frame like polished ebony, and one of our own children can do the work, which is simply a pleasure."—*Vide Daily Press*.

Home, sweet, sweet home, can sweeter far be made
With "Aspinall's Enamel" Paint displayed
On shelves and brackets, wicker-work and doors—
On all things, from the ceilings to the floors.

An assorted half-gross will be sent carriage paid to any Railway Station at 9s. 6d. per dozen. All printed matter supplied free of charge.

ASPINALL'S ENAMEL WORKS, PECKHAM, LONDON, S.E.

THE BEST PARAFFINUM MOLLE, B.P., IN THE MARKET IS
“PETROLINA.”
 PURE, SWEET, NEUTRAL, NON-OXIDISABLE, UNCHANGEABLE.

Determined to give every possible inducement to the Consumer, the BINGHAMTON OIL REFINING CO. have authorised

A STILL FURTHER REDUCTION IN PRICES.

So that Petrolina is now as cheap as any of the inferior jellies.
 Packed in oak kegs of 112 lbs., 56 lbs., and 28 lbs.; also tins of 14 lbs., 5 lbs., and 1 lb.; and in casks of 2 cwt. and 3 cwt.

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SEALING WAX.

HIGHEST AWARD and

ONLY GOLD MEDAL

For SEALING WAX Exhibited,
 INTERNATIONAL EXHIBITION, EDINBURGH, 1886.

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SILVER MEDAL
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THE ONLY
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CHLORIDE OF LIME!
 IN AIRTIGHT WATERPROOF INVENTORS AND MANUFACTURERS
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THE N. C. Cos. PACKAGES HAVE STOOD THE TEST FOR MANY YEARS, AND CAN ALWAYS BE RELIED UPON TO GIVE SATISFACTION.

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MANUFACTURERS OF

Glass Paper, Emery and Glass Cloth; Emery, Black Lead, Emery Wheels Pumice, Putty Powder, Crocus, Urn Powder, Tripoli, Rouge, Plate Powder, Steel Polish, Furniture Polish, Knife Boards, Brunswick and Berlin Black, &c.

OAKEY'S WELLINGTON KNIFE POLISH,

Prepared expressly for Oakey's Patent India-Rubber Knife Boards, Buff Leather Boards, and all the Patent Knife Cleaning Machines. Sold in Canisters with perforated Tops to prevent waste, at 1d., 2d., 3d., 6d., 1s., 2s. 6d., and 4s. each.

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OAKEY'S "POLYBRILLIANT" (Registered).

A Magic Pomade for Cleaning Brass, Copper, Tin, Pewter, Britannia Metal, &c. Never becomes dry and hard like other Metal Pastes.
 Tins 1d., 2d., 3d., and 6d. each.

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WELLINGTON EMERY & BLACK LEAD MILLS, Westminster Bridge Road, London, S.E.

Highest Award and Prize Medal, Philadelphia Exhibition, 1876; and Boston, 1883. Gold Medal, Crystal Palace, 1884.

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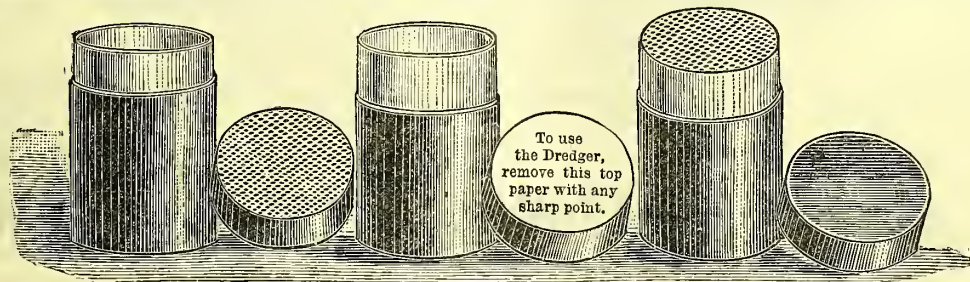
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PERMANENT IN SHAPE. EASY IN ADMINISTRATION. EFFICACIOUS IN ACTION.

Each Genuine Ball has a Gelatine Label bearing the Maker's Name.

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IN LAMBS & CALVESCURED BY
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COMPOUND.A distinct preparation
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sovereign remedy which
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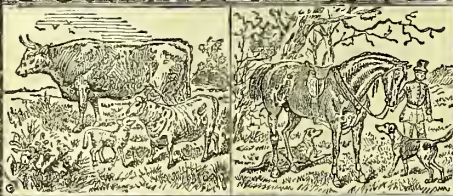
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For Outward & Inward Use

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TESTIMONIALS.

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The True Origin of the Old Rhyme.



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I'm over a milkin' Sir she said.
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They are, thanks to DAY & SONS Sir she said.

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USED EVERYWHERE FOR NEARLY 50 YEARS.

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HORSE & CATTLE MEDICINES.

DAY & SONS' "PURIFIED DRIFIELD OILS" (commonly called by Farmers "Days' Black Oils") for Wounds and Injuries of all kinds in all animals; anointing in difficult Lambing and Calving, &c. Price 2/6 per bottle.

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UNIVERSAL MEDICINE CHEST, PRICE £2 4s.,
which contains above five, together with four other, matchless medicines, and easy guide, carriage paid.

Beware of Imitations and note our ONLY Address—
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Have the Largest Sale of any Medicine in the World.

MANUFACTURED ONLY AT

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And sold at 1s. 1½d., 2s. 9d., 4s. 6d., 11s., 22s., and 33s. each Box or Pot.

Chemists and Druggists selling "Holloway's Pills and Ointment" can on application to the above address, or to the Wholesale House with whom they deal, be supplied free of charge with Handbills and Posters with their name and address printed at foot.

Wholesale Terms see List of "Proprietary Articles" in most Price Currents.

INDEX TO ADVERTISEMENTS,

See pages 37, 38, 39.

Pattison's Bath Gloves

30

VARIETIES

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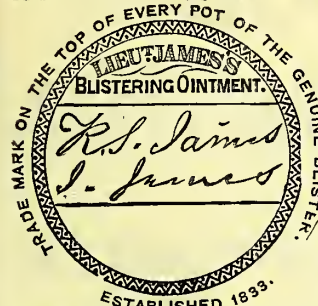
2/-

PER DOZEN PAIRS.

Lists on application.

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ESTABLISHED 1833. HORSES.—LIEUT. JAMES'S BLISTER.



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The annexed Label is at the top of every Pot of the ORIGINAL and only GENUINE BLISTER.

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SEE INDEX, PAGES 37 to 39.

CARBOLIC POWDER £4 TON.

1 ton lots and upwards.

CARBOLIC PINK POWDER,

6/ 8/, and 10/ PER CWT., in bags or casks.

HANDSOME LARGE DECORATED BLACK AND GOLD TIN BOXES.

Size 7½ ins. by 3 ins. diameter, holding 1½ lbs. (usual 1/ size).
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Ditto, LARGE SIZE, holding about double quantity,
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CRUDE CARBOLIC ACID (Brown),

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DARK SANITARY FLUID

(To be used with 80 parts of water, making a milky fluid).

3/6 PER GALLON.

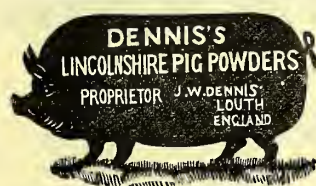
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All goods delivered free in London or suburbs, or to rail or docks.

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HAMILTON & CO.,

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SUPERIOR TO ANY OTHER PREPARATION.

In packets 10d. per dozen, 5d. half-dozen.

That this is the only Medicine which cures all diseases to which Pigs are subject is proved by THOUSANDS of TESTIMONIALS from all parts.

Sale increases daily in spite of numerous imitations.



REGISTERED TRADE MARK. NO. 27972.

This new and popular Butter Coloring, which is perfectly harmless, imparts neither taste nor smell, and gives to Butter the very colour which commands a ready sale.

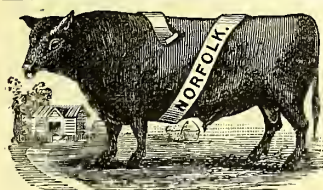
ONCE TRIED ALWAYS USED.

In bottles 6d., 1/, and 2/ each.

Chemists and Grocers are asked to stock the above Preparations as they allow a good profit, sell well, and are kept in stock by all the London and Provincial Patent Medicine Houses.

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CARBOLIC POWDER (PINK) in TINS 6d & 1/6
CARBOLIC FLUID in 6d & 1/6 STOPPERED BOTTLES
CARBOLIC & GLYCERINE SOAP No 1 & No 2
CARBOLIC & GLYCERINE SOAP in ¼ lb & ½ TABS
FREE FROM POISON AGREEABLE IN SMELL.
THE GOVERNMENT SANITARY CO., LONDON E.
TO BE HAD FROM ALL WHOLESALE DRUGGISTS.

ROBERT GIBSON,
MEDICATED LOZENGE MANUFACTURER,
 CARLTON WORKS,
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 AND
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CHLORODYNE JUJUBES.
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 DELECTABLE AND VOICE JUJUBES.
 IN DECORATED TINS. TINS NOT CHARGED.

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Have an immense sale, both at home and abroad; will keep in any climate, and give universal satisfaction.

Put up in Tins, containing 3 dozen, 6 dozen, or 12 dozen 1d. Cakes.

GIBSON'S BOILED SUGARS

Have gained a high reputation, both at home and abroad. Are made of the best Loaf Sugar, and are equal to, if not surpassing, all others.

PACKED IN CASKS OR CASES FOR EXPORT, DELIVERED FREE ON BOARD.

Carriage paid upon six 4-lb. Bottles to any part of England.

COUGH DROPS, LIME FRUIT DROPS, AND ACID DROPS,
ESPECIALLY RECOMMENDED.

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All Lozenges are sent out in 2-lb. and 4-lb. Bottles (bottles free), but allowed for if returned.

PROPRIETARY LOZENGES carefully prepared, stamped, and cut to any size or shape.

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"BEST AND CHEAPEST."

Should be handled by every Druggist, as they leave more Profit, and give more satisfaction than any Brand. Twenty-two Patterns to select from.

In ordering please quote Numbers to avoid mistakes. Cones supplied loose at lowest prices.



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ONLY PURE JAPAN MENTHOL USED



No. 200.



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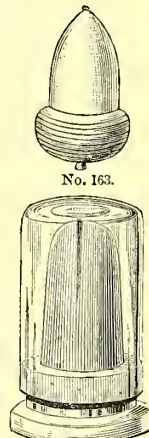
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Nos. 203, 205, 206.



Nos. 162 & 163.



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162. " " " " Pedestal " Screw Lids	3/11	1/	210. Boxwood Boxes, Acorns, Nekl Pld, Caps	5/4	1/
163. Vegetable Ivory, Acorn Shape	5/0	1/	211. Vegetable Ivory Boxes	5/10	1/
200. Boxwood Boxes, Pedestal " Screw Lids	3/0	6d.	212. Boxwood Boxes, Bullet Shape, reversible		
201. " " " " Barrel " "	3/11	1/	end	4/8	1/
202. " " " " Bullet " "	3/11	1/	213. Menthol Charms for Watch Chains, &c.	2/8	6d.
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209.—Nickel Plated Pencil, with Menthol at end, 1/ size, 4/6 per doz.

A Sample Box containing one each of above, 6/; by post 7/.

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HOCKIN, WILSON & Co.

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5 per cent. Discount for
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Special Quotations for
Large Quantities.

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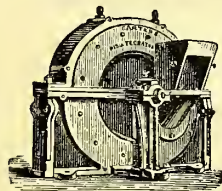
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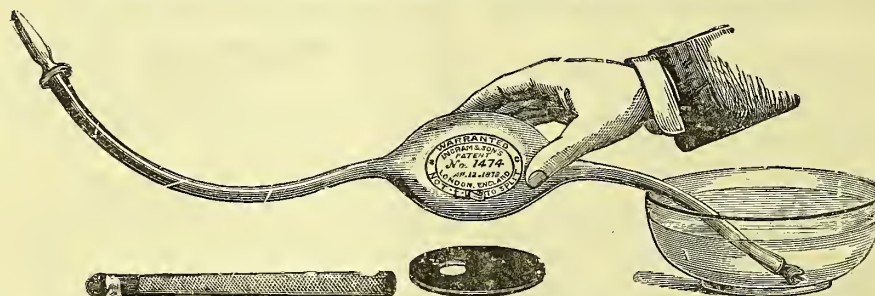
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